

AD/A-002 860

A STRUCTURAL WEIGHT ESTIMATION PROGRAM (SWEEP) FOR AIRCRAFT. VOLUME VI - WING AND EMPENNAGE MODULE. APPENDIX C: PROGRAM FLOW CHARTS, OVERLAYS (9.0) AND (10,0)

G. Hayase

Rockwell International Corporation

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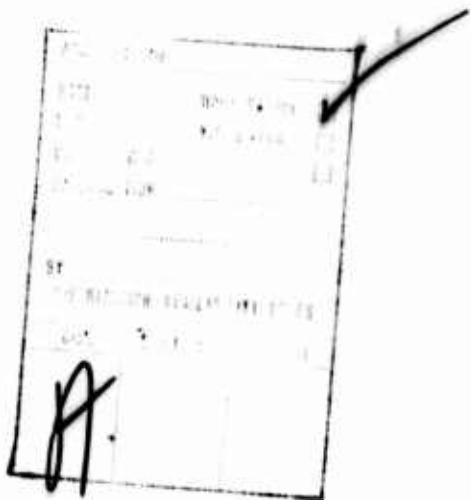
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Three computer programs were written with the objective of predicting the structural weight of aircraft through analytical methods. The first program, the structural weight estimation program (SWEEP), is a completely integrated program including routines for airloads, loads spectra, skin temperatures, material properties, flutter stiffness requirements, fatigue life, structural sizing, and for weight estimation of each of the major		

20. ABSTRACT (CONTINUED)

aircraft structural components. The program produces first-order weight estimates and indicates trends when parameters are varied. Fighters, bombers, and cargo aircraft can be analyzed by the program. The program operates within 100,000 octal units on the Control Data Corporation 6600 computer. Two stand-alone programs operating within 100,000 octal units were also developed to provide optional data sources for SWEEP. These include (1) the flexible airloads program to assess the effects of flexibility on lifting surface airloads, and (2) the flutter optimization program to optimize the stiffness distribution required for lifting surface flutter prevention.

The final report is composed of 11 volumes. This volume (volume VI) contains the methods and program description for the wing and empennage module of SWEEP. Program listings and flow charts are included in the appendix to this volume.



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JAMES H. HALL, Colonel, USAF
Deputy for Development Planning

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APPENDIX C

PROGRAM FLOW CHARTS, OVERLAYS
(9,0) AND (10,0)

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Routine	Appendix Reference Pages	
	Program Flow Charts	Program Listings
ØLAY9	1622	2424
CSECW	1680	2453
DEADW	1638	2432
DLPVT	1684	2455
DWYBA	1633	2429
PIVØT	1660	2443
PRØG	1625	2424
PRTA	1693	2461
PRTH	1703	2466
TBØPT	1646	2436
TEE	1672	2450
TEL	1676	2452
VLØAD	1642	2434

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Routine	Appendix Reference Pages	
	Program Flow Charts	Program Listings
ØLAY100	1734	2470
BHDJT	1878	2537
BØT	1780	2494
BØTC	1791	2497
CG3P	1894	2544
CNSTR	1737	2470
EIGJC	1860	2524
PRTB	1902	2546
PRTBK	1911	2550
PRTC	1907	2548
RTRIB	1887	2541
SECTD	1748	2477
SFSCH	1761	2485
SKWEB	1857	2523
SRRIB	1848	2520
SS	1899	2545
STBAR	1811	2507
STRG	1817	2509
STRGØ	1833	2514
STRIB	1842	2518
STRIL	1837	2516
STWEB	1851	2521
TSCH	1795	2498
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OVERLAY (9,0)

TORQUE-BOX STRUCTURAL SYNTHESIS/WEIGHT
ANALYSIS FOR METALLIC DESIGNS - NO. 1

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REFERENCES (SOURCE, SERIALIZE NO., AND PAGE/BOX)

FORTRAN MODULE WING AND EXPERIMENTAL MODULE -

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - PROCEDURES

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(000029)	2.08	20	(000027)	2.07	(000027)	2.07

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CHART TITLE - INTRODUCTORY COMMENTS

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(001191)	33 03	465	(001247)	33 26				
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(001222)	33 19		(001234)	33 22				
(001234)	33 22	486						
(001244)	33 24	487	(001189)	32 08 (001190)	33 02			
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(001251)	34 01	4890	(001238)	33 23				
(001252)	34 02	4895						
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(001255)	34 05	4891						
(001257)	34 07	4892						
(001259)	34 08	4893	(001254)	34 04				
(001260)	34 09	4894						
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(001267)	34 11	7000						
(001268)	34 12		(001270)	34 13				
(001270)	34 13	7001						
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(001281)	34 16		(001282)	34 17				
(001282)	34 17	7010						
(001286)	35 01		(001287)	35 02				

(001207)	35.02	702			
(001294)	35.03	710			
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(001311)	35.11	713			
(001316)	35.13	714	(001306)	35.09	(001310) 35.10
(001323)	35.15	720			
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(001329)	35.18	721			
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(001343)	36.04	751			
(001345)	36.04	752			
(001347)	36.07	753	(001342)	36.03	(001344) 36.05
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(001357)	36.13	755			
(001362)	36.15	760	(001359)	36.14	
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(001368)	36.19	761			
(001373)	36.20	770	(001359)	36.14	
(001374)	36.21		(001376)	36.22	
(001376)	36.22	771			
(001383)	36.25	780			
(001385)	37.02	781			
(001386)	37.03	782			
(001390)	37.04	783	(001384)	37.01	(001385) 37.02
(001391)	37.05		(001393)	37.06	
(001393)	37.06	784			
(001397)	37.07	790	(001021)	27.01	(001010) 27.06 (001030) 27.07
(001398)	37.08	791	(001238)	33.23	
(001404)	37.10	799	(001189)	32.00	(001190) 33.02 (001397) 37.07

CHART TITLE - NON PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PIVOT

(001457)	40.01	PIVOT	(001272)	34.14-X	
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(001483)	40.05	20	(001481)	40.04	
(001484)	40.06	21			
(001486)	40.07	22	(001483)	40.05	
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(001514)	40.19		(001513)	40.17	
(001518)	40.21	30	(001520)	40.22	
(001519)	40.22	31			
(001521)	40.23	33	(001518)	40.21	
(001525)	41.01	35	(001518)	40.21	
(001528)	41.04		(001527)	41.02	
(001531)	41.05	37	(001523)	40.23	
(001535)	41.08	38			
(001536)	41.09	39	(001534)	41.07	
(001559)	42.07	50	(001572)	42.13	
(001570)	42.12	55			
(001571)	42.13	57			
(001574)	42.14	60	(001569)	42.11	(001570) 42.12
(001575)	42.15	61			
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(001580)	42.18	70	(001813)	47.18	(001819) 47.20
(001581)	42.19	71			
(001583)	42.20	72	(001580)	42.18	
(001584)	42.21	73	(001582)	42.19	
(001593)	42.28		(001592)	42.26	
(001594)	43.01	74	(001588)	42.23	
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(001597)	43.04	80	(001593)	42.20	

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001606	43.10	08	001603	43.08	
001608	43.11	00	001605	43.09	
001609	43.13	100	001744	46.05	
001609	43.13		001608	43.11	
001620	43.20	104	001645	44.05	
001634	43.23	105			
001638	44.01	300	001633	43.22	
001643	44.04		001641	44.02	
001647	44.06	110			
001654	44.13	000			
001659	44.14	010	001653	44.12	
001661	44.21		001659	44.19	
001664	44.24		001683	44.22	
001687	44.26	130			
001689	45.01	132	001688	44.25	
001690	45.02	134	001680	44.20	
001671	45.05	135	001692	45.03	
001705	45.11	140	001703	45.09	
001734	45.25	160	001732	45.24	
001736	46.01	164	001732	45.24	
001737	46.02	170	001735	45.25	
001741	46.05		001739	46.03	
001747	46.06	200	001711	45.15	001716 45.17
001774	46.18		001772	46.16	
001778	46.21		001776	46.19	
001781	46.23	220			
001787	47.01	222	001780	46.22	
001784	47.02	224	001782	46.23	
001788	47.05	226	001786	47.03	
001807	47.15	240			
001814	47.17	250	001806	47.14	
001812	47.18	246	001810	47.16	
001810	47.20	252	001816	47.18	
001821	48.01	500	001818	47.16	001816 47.18
001833	48.07	5001			
001857	48.15	505			
001864	48.16	705	001837	43.23	001858 44.13
001861	48.17		001885	48.21	
001883	48.19	708			
001885	48.21	710	001881	48.18	
001886	48.22	5002	001832	48.06	
001888	48.23	999	001401	40.04	

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE TEL(111,11X)

001923	52.71	TEE	001887	45.06-X	001708 45.12-X	001791 47.06-X	001883 47.11-X
001946	52.82	68	001982	53.03			
001961	52.87	80	001971	52.11			
001971	52.11	70	001959	52.10			
001973	52.12	71	001960	52.10	001971 52.11		
001977	53.01	72	001975	52.13			
001979	53.02	73	001975	52.13			
001984	53.04	75	001982	53.03			
001985	53.05	80					

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE TEL(11,1X)

002036	56.01	TEL	001688	45.07-X	001708 45.14-X	001792 47.07-X	001884 47.13-X
002064	56.02	70	002095	57.05			
002070	56.08	75	002086	57.02			
002087	56.12	81	002082	56.11			

CARD ID	PAGE/BOX	NAME	REFERENCES - SOURCE SEQUENCE NO. AND PAGE/BOX
1002041	57.01	60	1002032 56.11
10020311	57.03	62	1002030 56.13
10020331	57.04	03	1002031 56.13
10020371	57.16	65	1002031 57.05

CHART TITLE - 1001 PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE CSMW

10021091	60.01	CSM W	10021941 39.03 X
10021421	60.01	400	
10021431	60.02		10021450 60.03
10021461	60.03	401	
10021521	60.05	410	10021491 60.04
10021661	60.09	411	
10021761	60.12	420	
10021771	60.13		10022041 60.24
10021931	60.18	421	
10021941	60.20	422	
10022041	60.24	423	
10022071	60.25	430	
10022111	60.26	431	
10022171	60.28	432	
10022211	61.01		10022221 61.02
10022221	61.02	433	
10022231	61.03	440	
10022251	61.04		10022271 61.05
10022281	61.05	441	
10022351	61.07	442	
10022441	61.10	450	
10022451	61.11		10022481 61.12
10022481	61.12	451	
10022491	61.14	460	
10022571	61.15		10022581 61.16
10022581	61.16	491	
10022601	61.17	492	10021491 60.04

CHART TITLE - NEW PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE DCPV

10022711	64.01	DCPV	10013621 36.15 X
10023111	64.02	5001	
10023151	64.05		10023201 64.10
10023181	64.08	812	
10023201	64.10	801	10023171 64.07
10023211	64.11	5002	10023101 64.01
10023261	64.14		10023271 64.15
10023271	64.15	10	
10023291	64.23	110	10023371 64.22
10023501	64.24	120	10023641 65.02
10023621	65.01	130	10023571 64.22
10023641	65.02	140	10023571 64.22
10023661	65.03	150	10023641 65.02
10023681	65.04	160	10023611 64.24
10023721	65.05	170	10023681 65.04
10023731	65.06	200	10024031 68.06
10023801	65.08	210	10023781 65.07
10023821	65.10		10023831 65.08
10023931	66.01	240	10023941 65.11
10023951	66.02	250	10023941 65.11
10024001	66.04	260	
10024021	66.06		10024081 66.09
10024081	66.09	270	
10024131	66.11	280	
10024171	66.13	290	10024141 66.12
10024181	66.14	300	10024141 66.12

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(002420)	66.15	310	(002430)	67.05	
(002429)	67.01	320	(002449)	68.12	
(002433)	67.03	330			
(002435)	67.04	340	(002432)	67.02	
(002441)	67.06	350	(002430)	67.05	
(002453)	67.10	360	(002425)	66.17	
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(002468)	68.01	410	(002466)	67.16	
(002473)	68.03	420	(002471)	68.02	
(002479)	68.04	430	(002463)	67.15	
(002482)	69.05	440	(002370)	65.07	(002455) 67.11
(002485)	68.07	500			
(002488)	68.09	510	(002459)	67.13	
(002490)	68.09	520	(002459)	67.13	(002466) 67.16
(002491)	68.10	525	(002471)	68.02	
(002492)	68.11	530	(002481)	68.04	
(002495)	68.12	540	(002476)	68.03	
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(002520)	69.11	560			
(002541)	69.16	570			
(002551)	69.18	600	(002359)	65.04	(002446) 69.17
(002553)	69.21		(002422)	69.19	
(002558)	69.23		(002423)	69.25	
(002563)	69.25	620			
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(002572)	69.32		(002470)	69.30	
(002581)	69.37		(002468)	70.03	
(002588)	70.03	650			
(002596)	70.06	660	(002446)	69.17	
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(002606)	70.12		(002609)	70.13	
(002609)	70.13	680			
(002634)	70.23	679			

CHART TITLE - NEW FEDERAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE: PRTA

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(002699)	73.07	492	(002693)	73.05								
(002703)	73.08	505	(002691)	73.04								
(002704)	73.09	510										
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(002710)	74.02	520	(002697)	73.06	(002701)	73.07	(002706)	73.09				
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(002721)	74.09	1901										
(002722)	74.10	1902										
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(002727)	75.01	1906	(002722)	74.10								
(002729)	75.03	1910	(002720)	74.08	(002721)	74.09	(002724)	74.12				
(002734)	75.04	200										
(002745)	75.06	202	(002777)	75.22								
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(002759)	75.13	207	(002756)	75.12								
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(002766)	75.17		(002767)	75.18								
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(002774)	75.20	2083	(002766)	75.17								
(002775)	75.21		(002776)	75.22								
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(002783)	76.01	209	(002756)	75.12	(002768)	75.14	(002771)	75.19				
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(002795)	76.04	2201				
(002802)	76.05	222				
(002809)	76.08	224				
(002811)	76.09		(002812)	76.10		
(002812)	76.10	2240				
(002816)	76.13	226				
(002828)	76.15	240	(002808)	76.07		
(002830)	76.16	530	(002718)	74.07		
(002838)	76.18	242				
(002841)	76.20		(002843)	76.21		
(002843)	76.21	2420				
(002847)	76.22	2421	(002837)	76.17		
(002857)	76.25		(002860)	76.28		
(002860)	76.28	246				
(002867)	76.32	247				
(002870)	76.34		(002872)	76.35		
(002872)	76.35	248				
(002878)	77.02	250	(002866)	76.31		
(002888)	77.04		(002891)	77.07		
(002891)	77.07	253				
(002905)	77.10		(002909)	77.13		
(002903)	77.13	263				
(002914)	78.01	270	(002911)	79.27		
(002915)	78.02	2701				
(002916)	78.03	2702	(002914)	78.01		
(002918)	78.04	271	(002914)	78.01	(002916)	78.03
(002925)	78.05	299	(002915)	78.02	(002911)	78.03
(002928)	78.06	2720	(002918)	78.04	(002918)	78.04
(002924)	78.07	532	(002718)	74.07	(002944)	78.15
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(002934)	78.10		(002837)	78.13		
(002937)	78.13	277				
(002940)	78.14	278				
(002949)	79.01	292	(002909)	77.13		
(002951)	79.02	534	(002718)	74.07		
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(002958)	79.07	2922				
(002973)	79.10		(002975)	78.13		
(002975)	79.13	297				
(002984)	79.21		(002986)	79.24		
(002988)	79.24	298				

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PRTH

(003006)	83.01	PRTH	(003112)	83.12-X	(003006)	37.03-X
(003032)	83.01	300				
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(003045)	83.06	501	(003043)	83.05		
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(003051)	84.01	492	(003045)	83.06		
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(003056)	84.03	510				
(003059)	84.04	515	(003055)	84.02		
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(003071)	84.12		(003078)	84.15		
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(003083)	84.18		(003085)	84.21		
(003085)	84.21	394				
(003092)	84.22	560	(003032)	83.01		
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(003104)	85.05	578				
(003108)	85.07		(003110)	85.10		
(003110)	85.10	563				
(003115)	85.13		(003117)	85.16		
(003117)	85.16	565				

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(003121) 05.19 (003123) 05.22

(003123) 05.22 506

(003120) 05.23 599 (003086) 04.21

CHART TITLE - NON-PROCEDURAL STATEMENTS

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CARD ID	PAGE/BOX	
0000171	2.02	UNRECOGNIZED SYNTAX
0000251	2.06	UNRECOGNIZED SYNTAX
0001291	5.10	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0001311	5.12	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0001331	5.14	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0001351	5.16	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0001371	5.1	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0001431	6.04	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0002931	9.14	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0003091	9.18	UNDEFINED - 'READING' EXTERNAL REFERENCE
0003551	10.08	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0003601	10.14	UNDEFINED - 'READING' EXTERNAL REFERENCE
0012001	33.04	UNDEFINED - 'READING' EXTERNAL REFERENCE
0012021	33.06	UNDEFINED - 'READING' EXTERNAL REFERENCE
0012041	33.08	UNDEFINED - 'READING' EXTERNAL REFERENCE
0012061	33.10	UNDEFINED - 'READING' EXTERNAL REFERENCE
0012081	33.12	UNDEFINED - 'READING' EXTERNAL REFERENCE
0013511	36.09	UNDEFINED - 'WRITING' EXTERNAL REFERENCE
0013731	36.24	UNDEFINED - 'WRITING' EXTERNAL REFERENCE

PROGRAM FLOW CHARTS

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AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 01

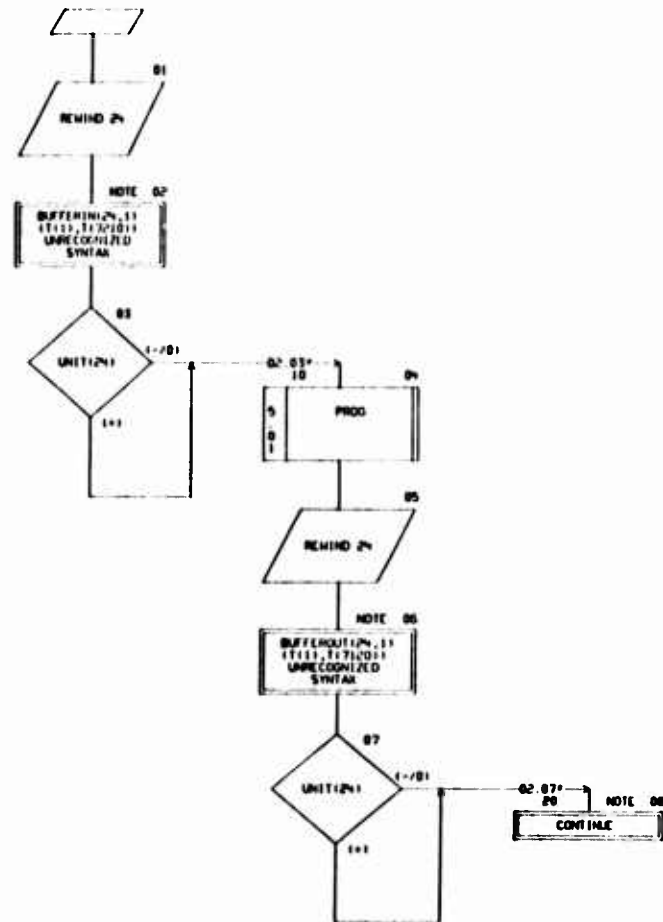
CHART TITLE - INTRODUCTORY COMMENTS

****PROGRAM GLAYS****

PROGRAM FOR SIXTH OVERLAY OF WING/EMPENNAGE MODULE

STRUCTURAL SYNTHESIS/WEIGHT ANALYSIS - METALLIC DESIGN NO 1

CHART TITLE - PROCEDURES



06/11/74

AUTOLIN CHART SET - SLEEP WING AND EIGHTHAGE PROBLE - PAGE 03

CHART TITLE - NON PROCEDURAL STATEMENTS

PROGRAM QLA3

CODE: 11171201

COMMENT: MISC / MISC11001

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AUTOLINK CHART SET 10/100 NOTES AND EPG LOGS TYPE 1 PAGE 04

CHART TITLE - INTERMEDIATE CONTENTS

*****SYNTHESIS PROGRAM*****

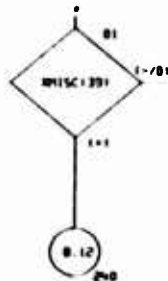
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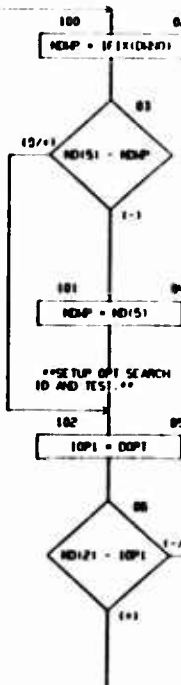
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      |          |
02 04  |          |
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**GENL CONTINUL PROG
FOR GW/GM PAGES**

***CHECK NMISC(33)
FOR STATUS--OLAY 17
OR OLAY 10***
*0- FIRST CALL OF
PROG*
*1-6-RETURN ID FROM
TRAPT FOR CALL TO
CNSTR OLAY 10*
*7-NORMAL RETURN
FROM TRAPT*

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MAX 5000



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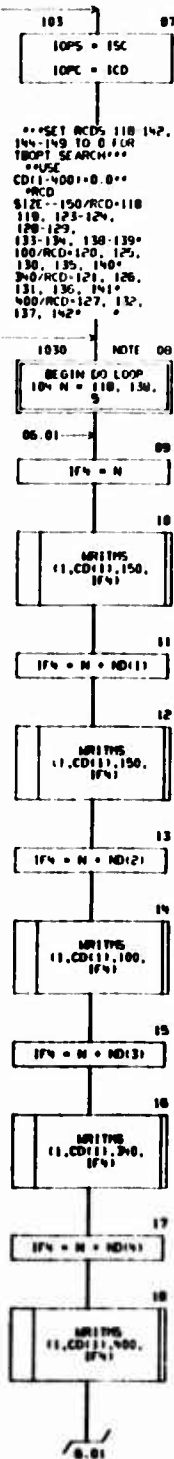
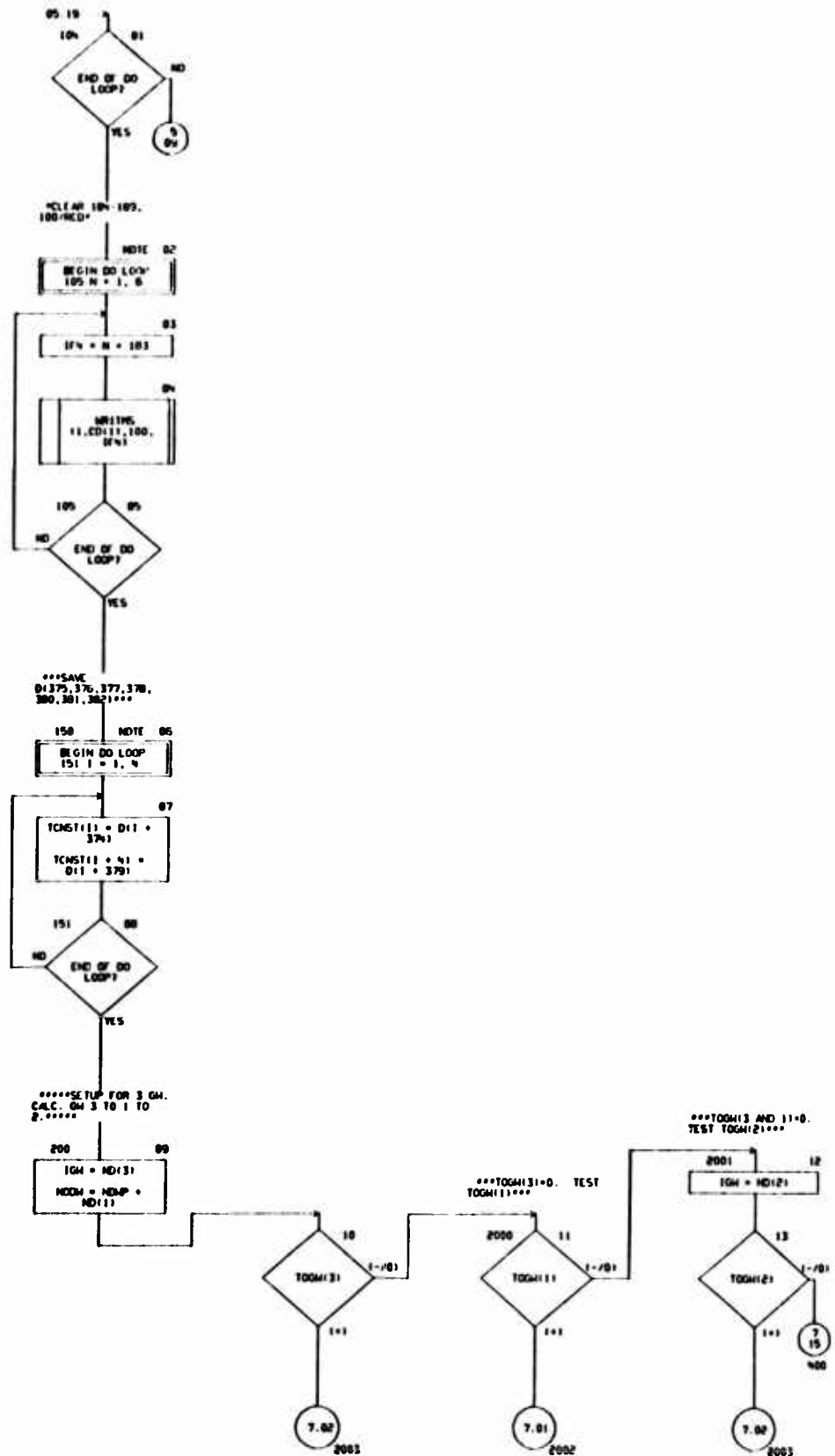
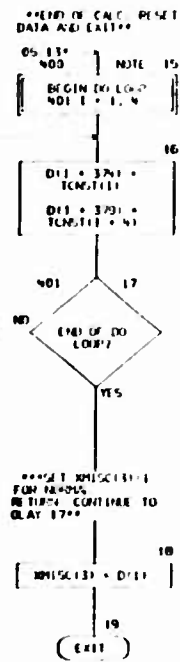
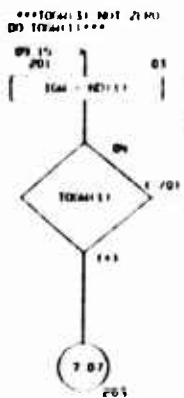


CHART TITLE - SUBROUTINE PROG

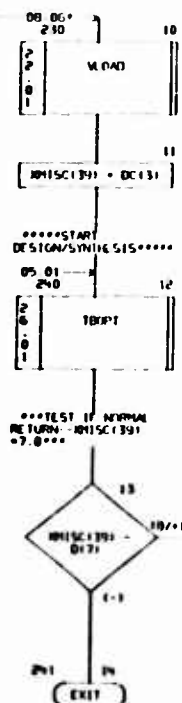





```

07 150
01
[
  SENSIT =
  S12000 =
  RUL2FEED1 =
  RUL2FEED2 =
  CCR2FEED1 =
  CCR2FEED2 =
  CCR3FEED1 =
]
02
[
  SENSIT =
  S12000 =
  RUL2FEED1 =
  RUL2FEED2 =
  CCR2FEED1 =
  CCR2FEED2 =
  CCR3FEED1 =
]
03
[
  SENSIT =
  S12000 =
  RUL2FEED1 =
  RUL2FEED2 =
  CCR2FEED1 =
  CCR2FEED2 =
  CCR3FEED1 =
]
2110
NO
END OF DO
LOOP?
YES
****DM ITERATION
LOOP ADJUST DM AND
TIG/MI****
04 210
DATA
05
**** TEST FOR
CONST BY TM ****
200
NO
CONST
YES
220
07
[
  D13751 =
  DCMST31GM = 11
  D13761 =
  DCMST31GM = 11
  D13771 =
  DCMST31GM = 71
  D13781 =
  DCMST31GM = 101
]
08
[
  D13801 =
  DCMST31GM = 131
  D13811 =
  DCMST31GM = 161
  D13821 =
  DCMST31GM = 191
]
****GET LOADS AND
DESIGN DATA****

```



```

***SAVE ASSURED
MULTI AND DPM DATA
FOR ITERATION***
**CIRCUIT TIP**

```

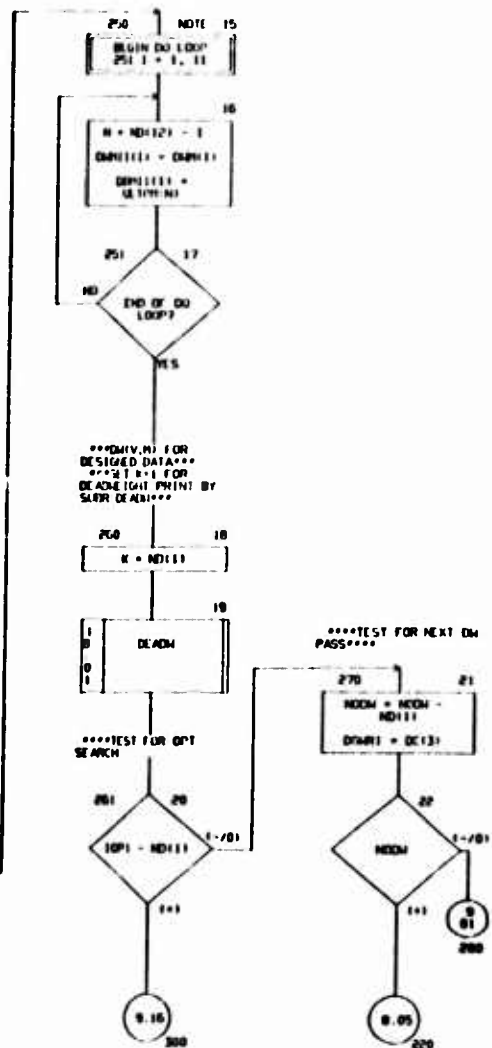


CHART TITLE - SUBROUTINE PROG

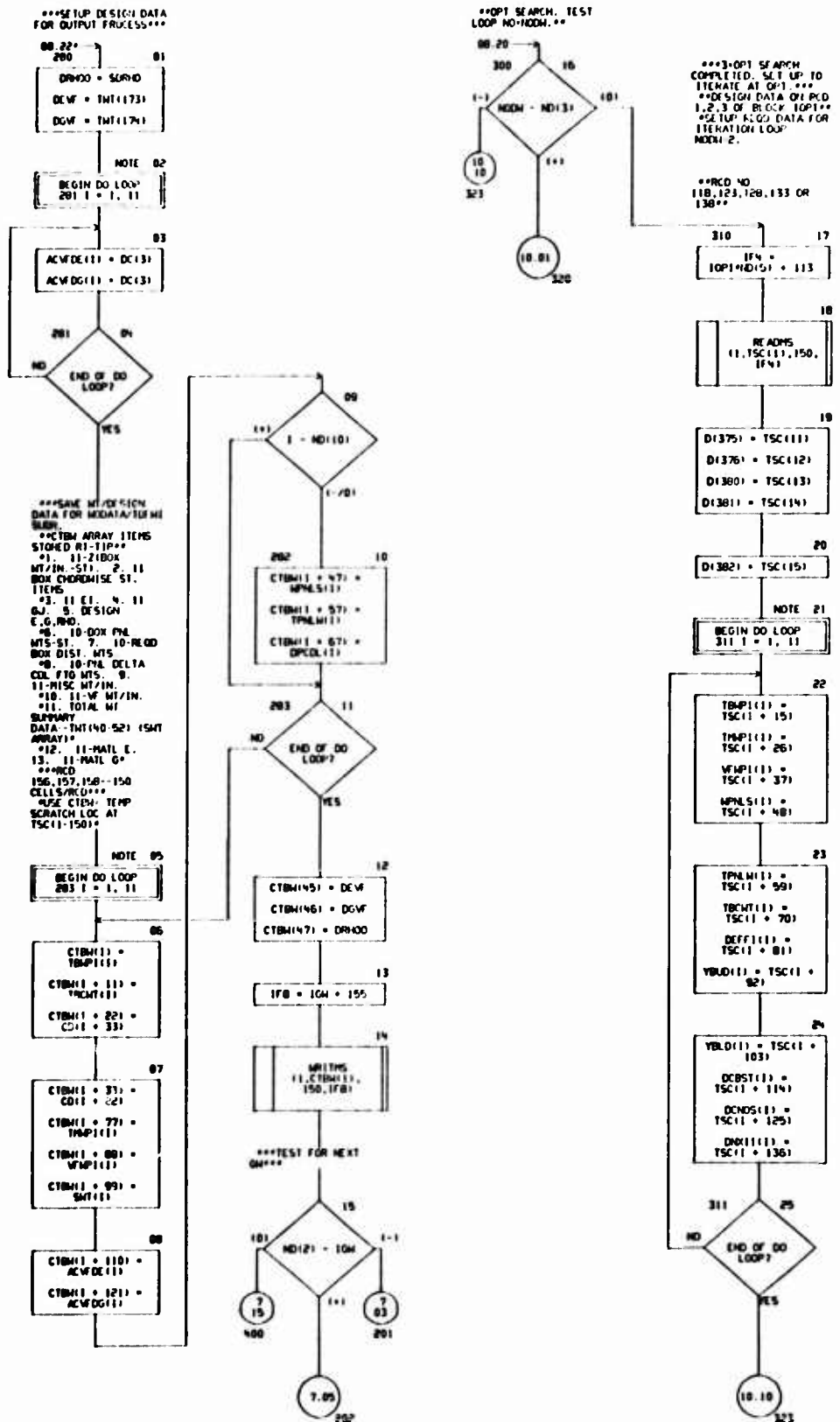
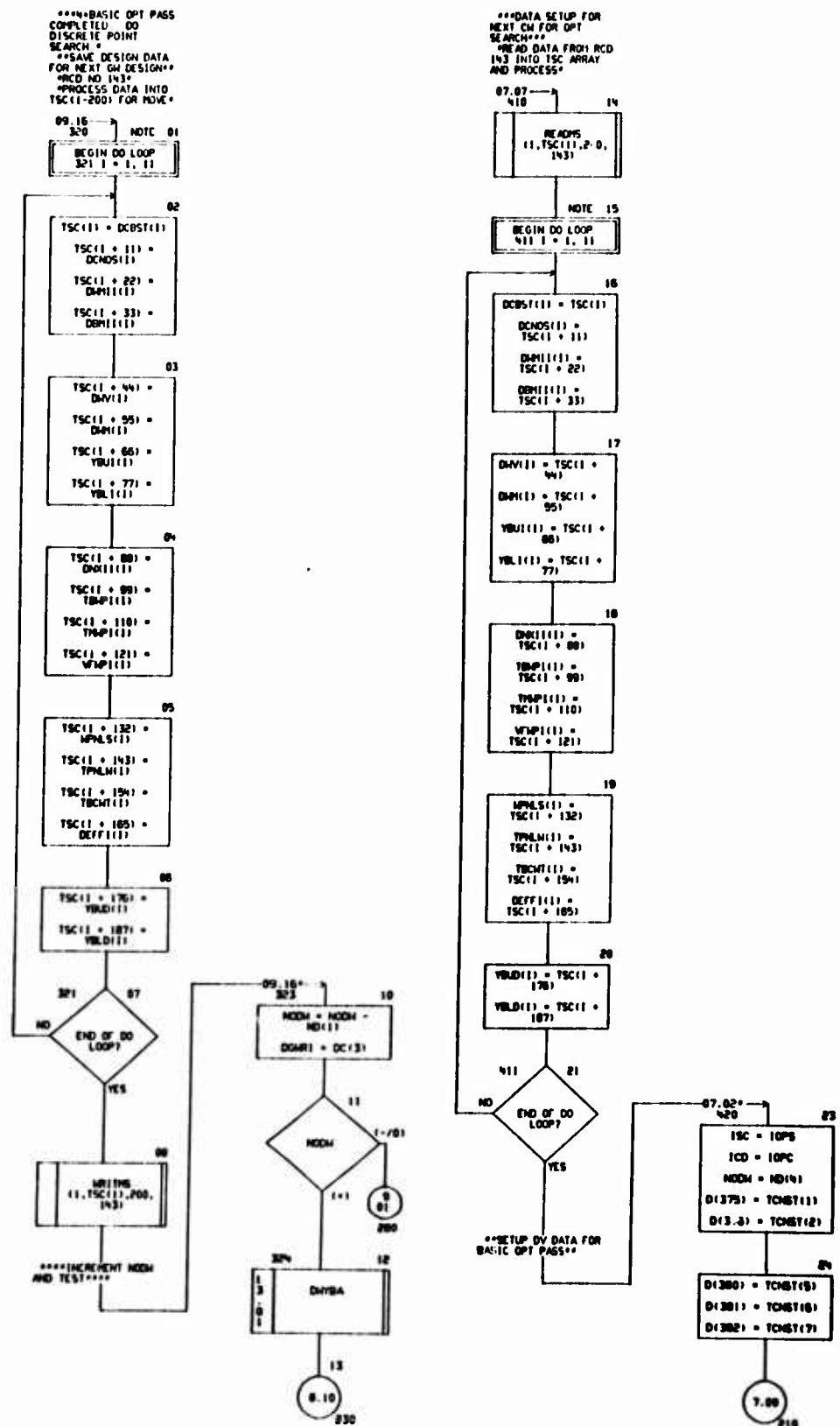


CHART TITLE - SUBROUTINE PROG



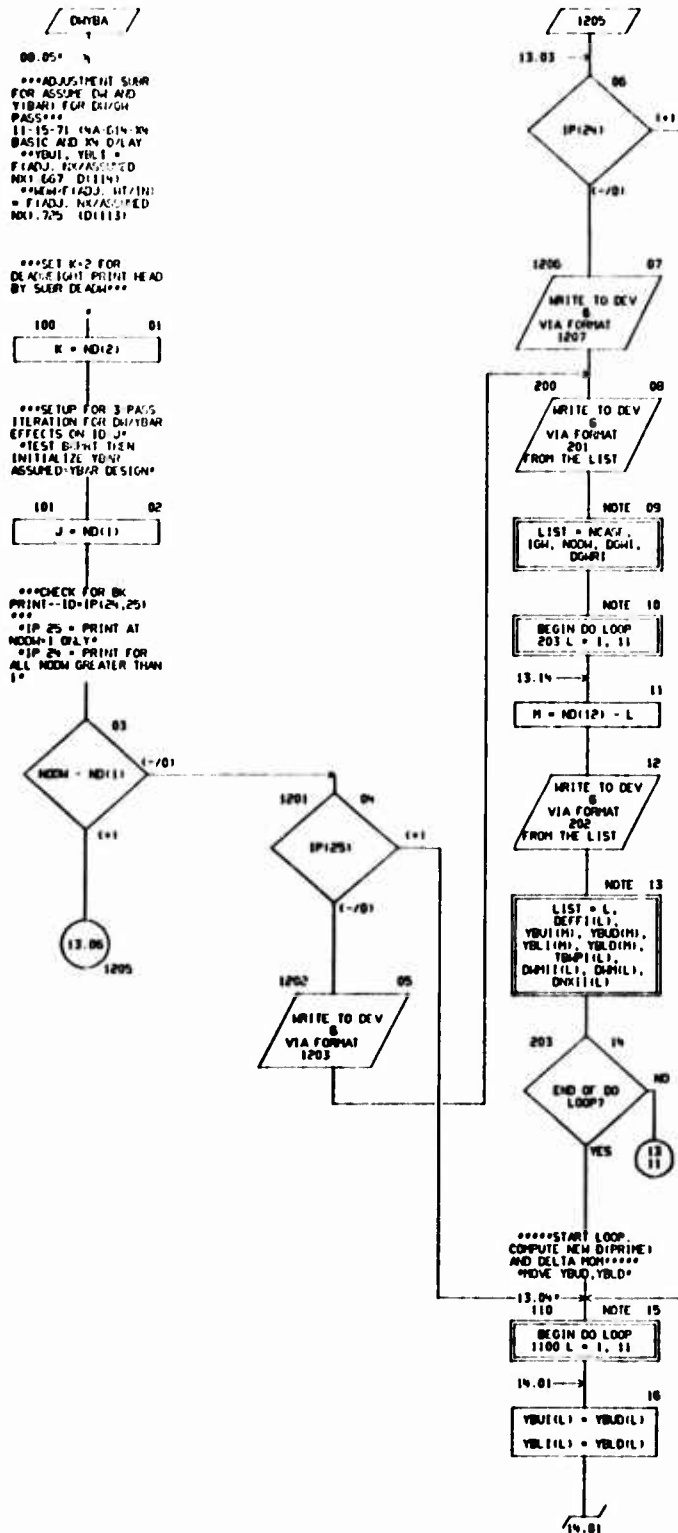
[illegible]

CHART TITLE - INTERMEDIATE CONTENTS

*****SLEEP AND DISORDERS*****

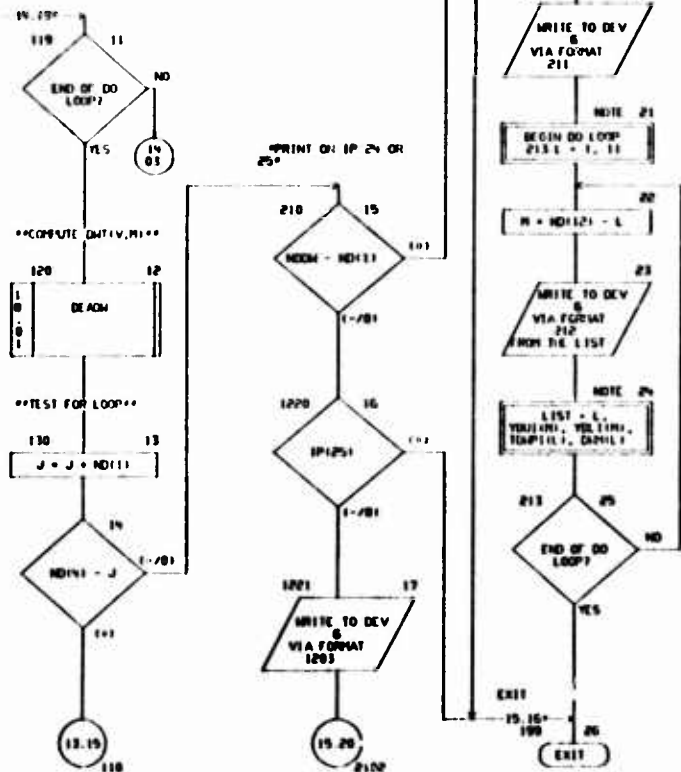
*****DISORDERS AND SLEEP AND DISORDERS*****

CHART TITLE - SUBROUTINE DMYBA




```

graph TD
    305[305] --> 1429[14 29]
    1429 --> 01[01]
    01 --> 02{02}
    02 --> 1071[10 71]
    1071 --> 110[110]
    110 --> 03[03]
    03 --> 1180[1180]
    1180 --> 04[04]
    04 --> 05{05}
    05 --> 1071
    05 --> 1101[1101]
    1101 --> 06[06]
    06 --> 1102{1102}
    1102 --> 1071
    1102 --> 1103[1103]
    1103 --> 08[08]
    08 --> 1104[1104]
    1104 --> 09[09]
    09 --> 10[10]
    
```




```

COMMON T162001
COMMON /T16157/ JP1001
DIMENSION D12(50),CD12(200),ND11(600),DF11(600),TSEC13(800),
VIBU1(10),VECD1(10),VEU1(10),VE11(10),
DMS1(100),CDM1(100),CD11(100),A1(1000),DMS1(10),
DETF1(100),T1(1000),T12(1000),T3(1000),
TDMT1(10),VAP1(100),
ALOS1(32),
T1(20),T1(17),T3(110)
EQUIVALENCE (D11),T1(2510),ICD1(1),T1(1210),DMS1(1),T1(1210),
ICD1(1),D11(600),TSEC1(1),CD15(100),AT1(1),T1(3170),
T1(10),T1(3000),T1(3000),T1(7000),ICD3(1),TDM1(10),
IDTMS1,D11(310),T1(190),D11(190),ICD1(1),D1(1220),ICD2(1),D1(2050),
CALPH1(1),T1(5500),ICD2(100),T1(7000),ICD3(100),T1(7120),
ICD4(100),T1(7230),ICF1(100),T1(6000),TDM1(10),T1(7500),
TDM1(10),T1(7600),T1(8000),T1(5300),ICD2(1),T1(6000),
VIBU1(10),T1(7300),VECD1(10),T1(2000),ICD3(1),T1(2000),
VIBU1(10),TSEC1(330),VIB1(10),TSEC1(1600),ICD2(1),ND1(600),ICD4(1),
T1(12),ND1(2500),T1(12),ND1(2700),ICD1(1),ND1(3000),ICD3(1),T1(5500),ICD2(1),
ND1(6000),TDM1(10),T1(9100),TDMT1(10),T1(7000),ICD2(100),T1(7600),ICD1(10),T1(1600),
ICD1(1),ND1(2900)
/END D5111,CD140011

```

```

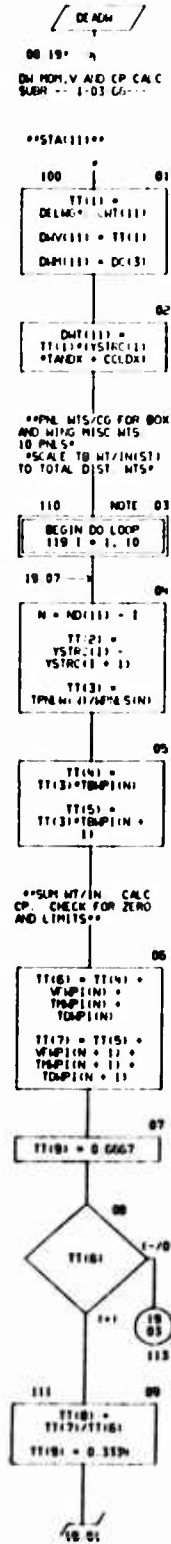
1203 FORMAT(1H1,6X,'2 * BETA = (P25) **')
1207 FORMAT(1H1,6X,'20 * BETA = (P24) **')
201  FORMAT(1H1, 4X,'4 * DEACK (4H A) Y OR ADJUSTMENT
      DATA = /NO,1X, 6H (4H 11,7H NOON:
      11,6H DAY-9 1,1H DAY-10 5,6H STA (4H A) Y OR ADJUSTMENT
      YR(1A) YR(1D) 10 W(1N) 10 M(1A) 10 M(1D) 10 D(1N) :
202  FORMAT(1H 2X,12,9,4,4F8,4,9,4,2,11,1,9,1)
211  FORMAT(4H5, STA YR(1H) YR(1D) 10 W(1N) 10 M(1N)
212  FORMAT(1H 2X,12,9,4,4F8,4,9,4,2,11,1,9,1)

```

CHART TITLE - INTRODUCTORY CONTENTS

```
*****  
*****SUBROUTINE DEACH*****  
***TORQUE BOX INERTIA LOAD EVALUATION***  
*****
```

CHART TITLE - SUBROUTINE DEAM



```

graph TD
    19[19  
WRITE TO DEV  
&  
VIA FORMAT  
1230] --> 20[20  
WRITE TO DEV  
&  
VIA FORMAT  
1241  
FROM THE LIST]
    20 --> 21[21  
NOTE  
LIST = 1000, NAME,  
DEAD]
    21 --> 22[22  
NOTE  
BEGIN DO LOOP  
I = N - 1, 10]
    22 --> 23[23  
WRITE TO DEV  
&  
VIA FORMAT  
1244  
FROM THE LIST]
    23 --> 24[24  
NOTE  
LIST = N, DAVINCI,  
DAVINI, DAVINI,  
TERPENTIN,  
WASP1000,  
TERPENTIN,  
TERPENTIN,  
TERPENTIN,  
WASP5000,  
TERPENTIN]
    24 --> 25{25  
END OF DO  
LOOP?}
    25 -- YES --> 26[26  
WRITE TO DEV  
&  
VIA FORMAT  
1245  
FROM THE LIST]
    25 -- NO --> 27[27  
NOTE  
LIST = NOB111,  
DAVINI1, DAVINI1,  
DAVINI1,  
TERPENTIN1,  
WASP1001,  
TERPENTIN1,  
TERPENTIN1,  
TERPENTIN1]
    26 --> 27
    27 --> 28[28  
19 12* - X  
199  
EXIT]

```

CHART TITLE - NON-EXERCISE STATEMENTS

```

COMMON T12001,D12001,CD12001,PD1001
COMMON /IFPRINT/ IP1001
DIMENSION DC1001,T1021,ISEC1301,
           DAV101,DAS101,DAT101,
           DCLV101,DCLM101,DCLT101,
           MWL501,TFLM101,TFLT101,
           TMAP101,WMP101,TSP101,
           YSTR101,TMAP101
EQUIVALENCE (DCLV101,D14011),TSEC101,CD13011,(TFL101,T13171),
           (YSTR101,TSEC1051),TACX,T1071,DCLX,T1011,
           (DAV101,T1931),DAS101,TDC11,(DAT101,T1021),
           (DCLM101,T1071),
           (DCLV101,T1251),DCLM101,T1011,DCLT101,T1251,
           (MWL501,T1051),TFLM101,T1021,TFLM101,T1031,
           (TMAP101,T1751),WMP101,T1751,TSP101,T1721,
           (TSP101,T17071),
           (DGL1,T1221),TPAGE,ND1051,INACE,ND1001,
           (ND01,ND1501),TDC1,TD1011,IN,ND1311,T1,ND1301,ND1,ND11
1203 FORMAT (H1,CP,PD)** DEAM - IP1251 **
1207 FORMAT (H1,CP,PD)** DEAM - IP1251 **
123  FORMAT (10J3  CASE IN 1  ,GN** EQUALIGHT SUPPLY DATA - TORQUE
      -BOX SYNTHESIS RESULTS ** /)
1230 FORMAT (5H40  ** DEARICION ADJUSTMENT FLUATS ** /)
1231 FORMAT (1H ,13X, 7H 10411,8H 10011,7H 10419,1,10011
      0 STA 101V1 101M1 101T1 101P1 101M1 101P1
      101P1 101M1 101DIST 101DIST 1)
124  FORMAT (1H 3X,12,F10.1,F12.1,F11.1,F10.4,9.9.4,3.10.2)
125  FORMAT (1H 3X,12,F10.1,F12.1,F11.1,F10.4,9.9.4,3.10.2)

```

06-11-74

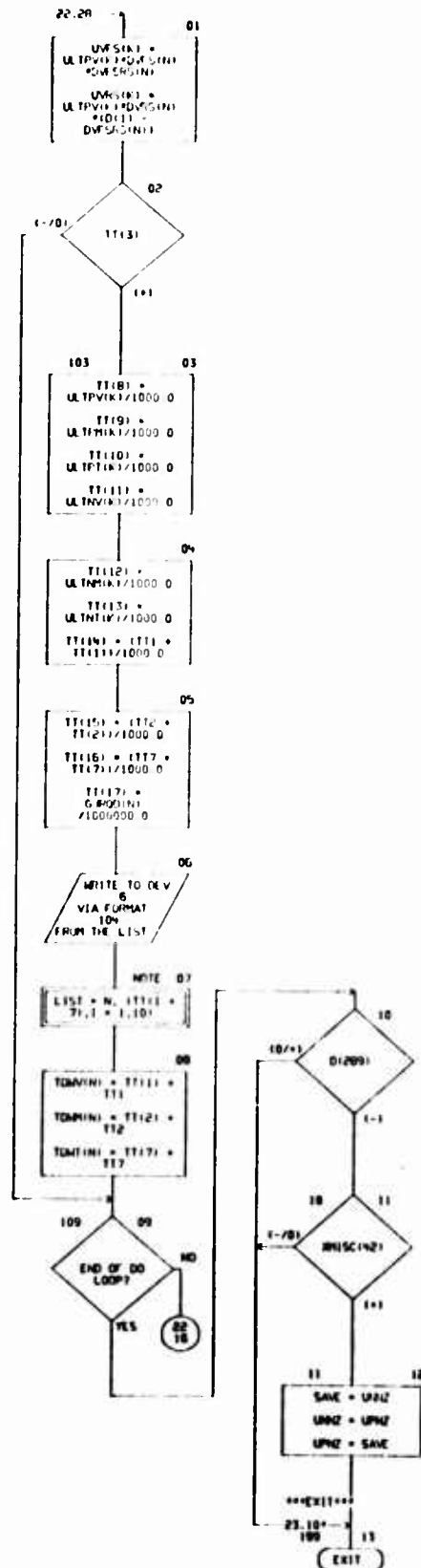
AUTOFLOW CHART SET - SWEEP WING AND ESTORAGE MODULE - PAGE 21

CHART TITLE - DATAATORY COMMENTS

*****SUBROUTINE LOAD*****

NET ULTIMATE DESIGN LOADS EVALUATION

CHART TITLE - SIMULATED M.O.O.



06/11/79

AUTOFLOW CHART SET - SHEEP WIND AID EFFICIENCY MODULE - PAGE 25

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE TB3PT*****

TOTAL TORQUE-BOX HEIGHT OPTIMIZATION CONTROL

05/11/74

AUTOFLOW CHART SET - SHEEP LAMING AID EXPERIMENTAL MODULE - PAGE 25

CHART TITLE - INTRODUCTORY COMMENTS

```
*****  
      ****SUBROUTINE TBOP1****  
      ***TOTAL TORQUE-BOX HEIGHT OPTIMIZATION CONTROL***  
*****
```

CHART TITLE - SUBROUTINE TBOPT

TBOPT

00.12 - 4

**TORQUE BOX
OPTIMIZATION CONTROL
ROUTINE-11-10-71**

SETUP CONTROLS FOR
11-SECTION/10-PANEL
DESIGN

***CHECK NMISC(30)
FOR FIRST CALL CALL
FROM PROG-D***

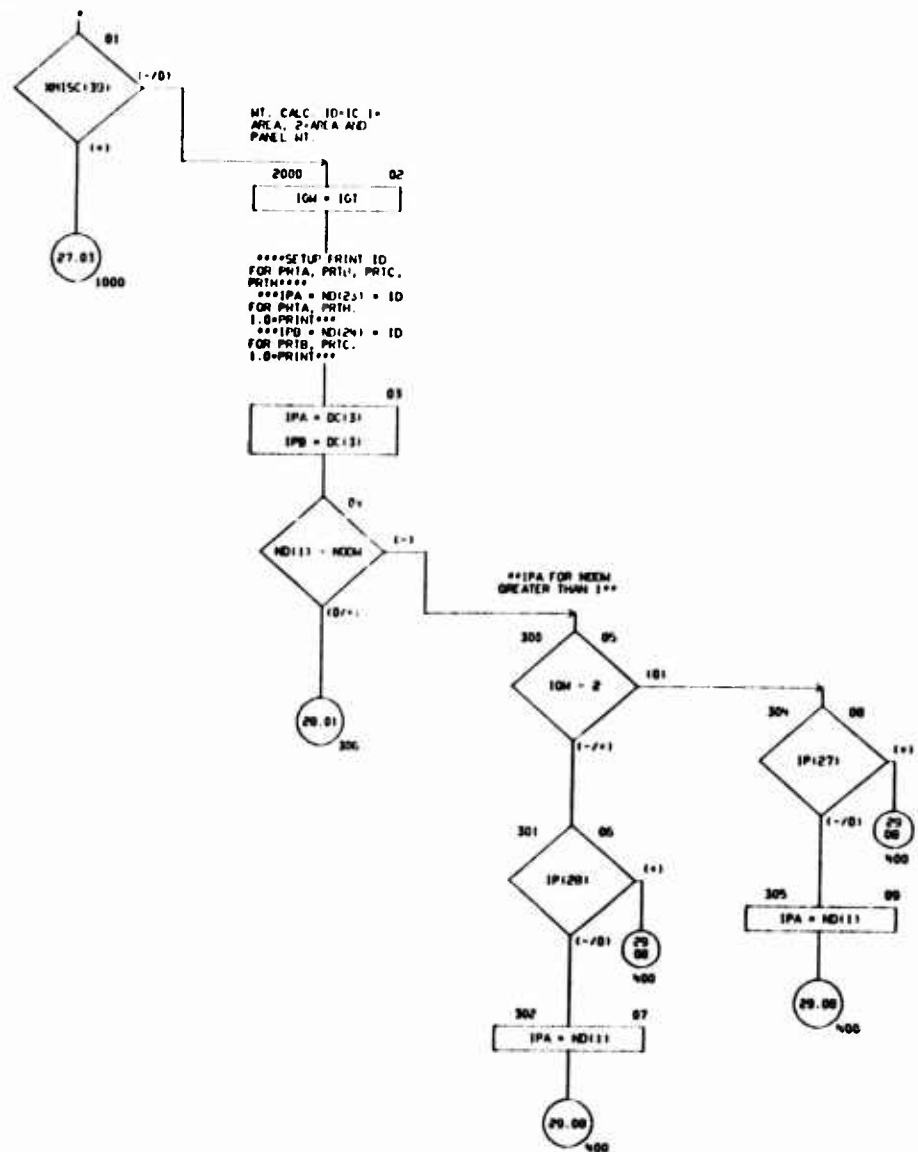


CHART TITLE - SUBROUTINE 1000

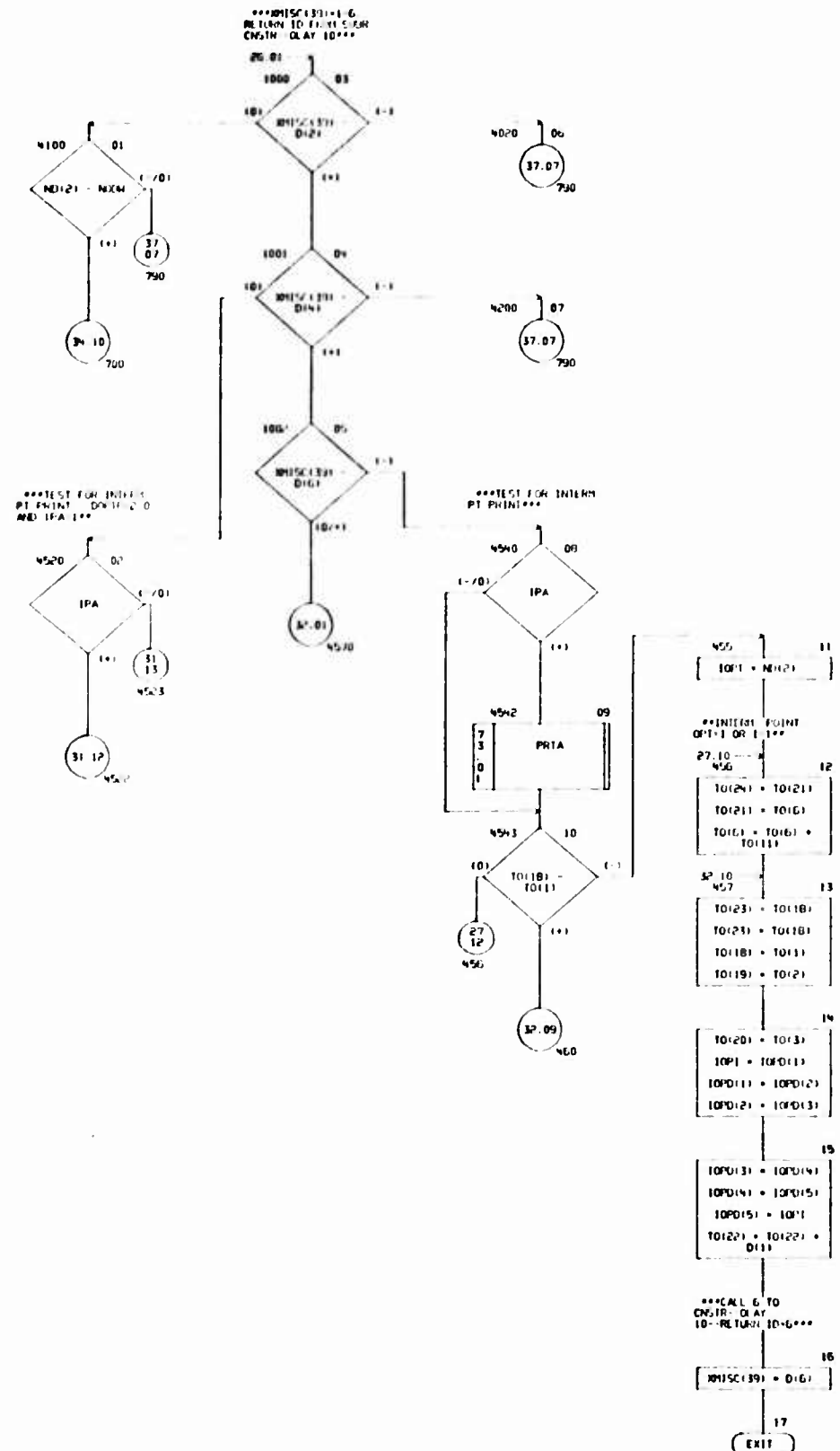


CHART TITLE - SCREENOUT/6 TRUMP

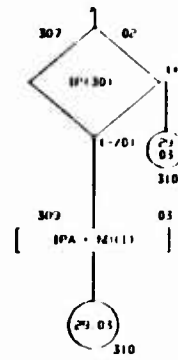
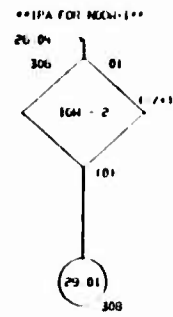


CHART TITLE - SUPPORTIVE 100P1

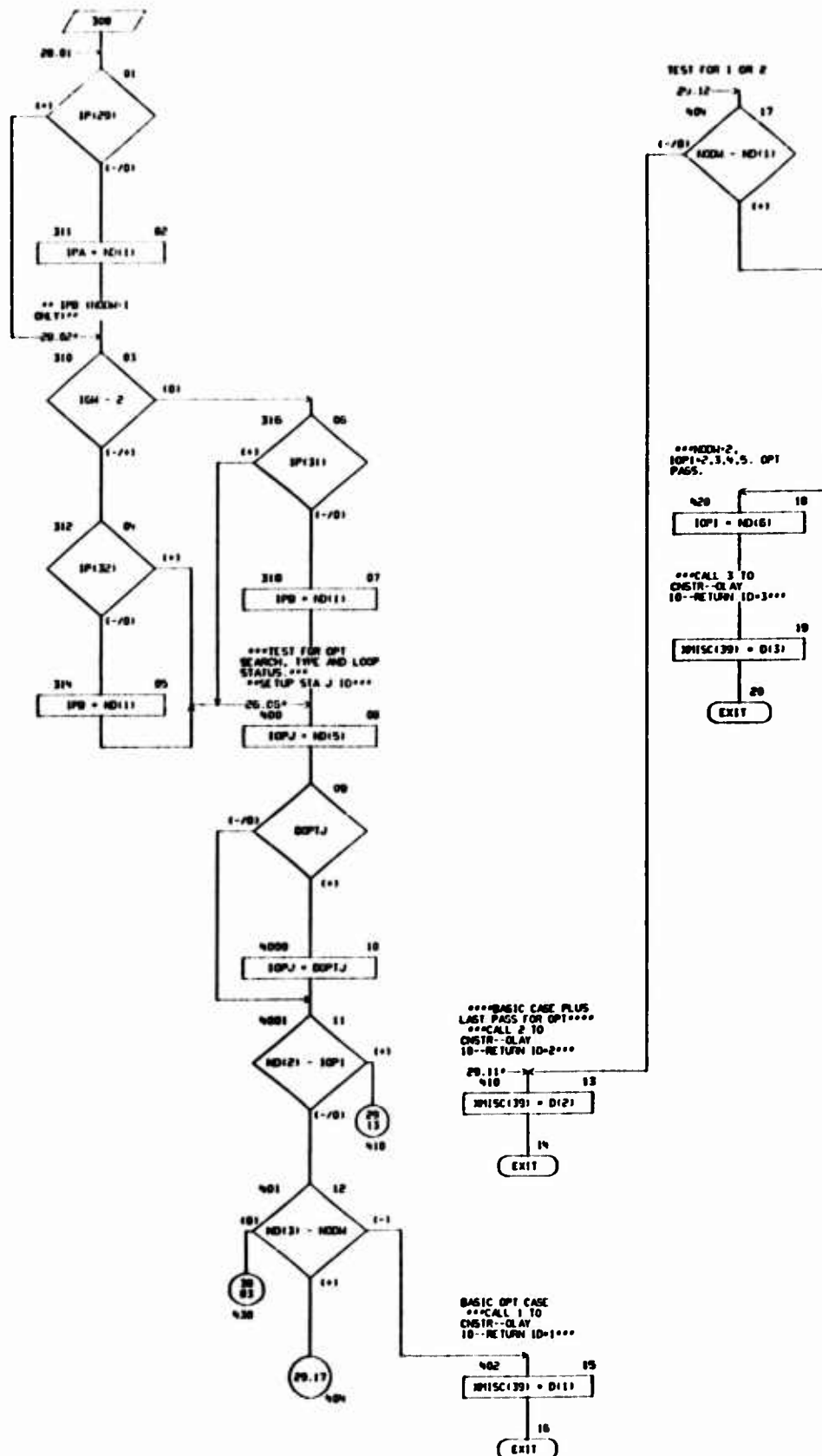
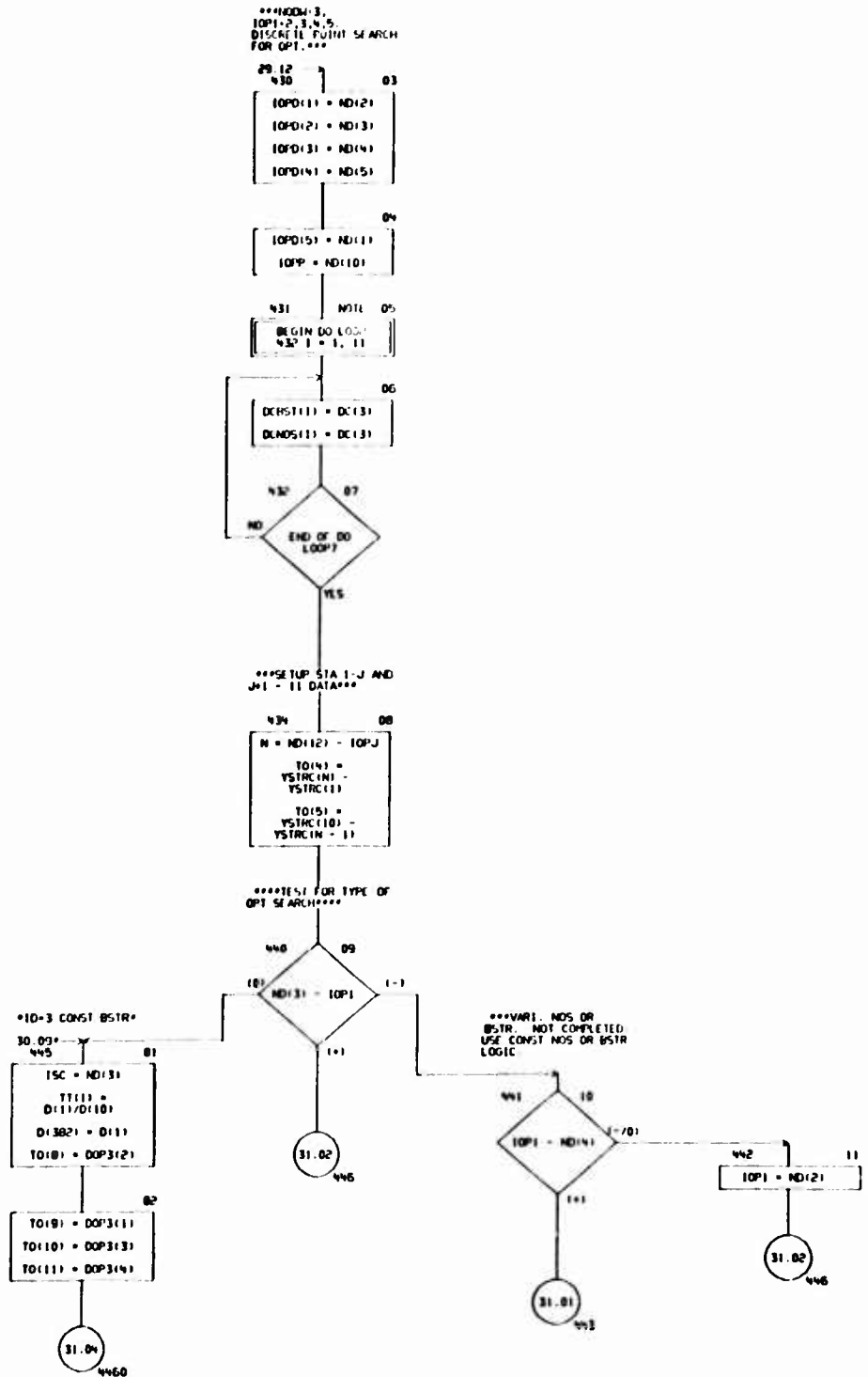


CHART TITLE - SUBROUTINE 10/P1



30 10

(C) = NE(3)

30.01



CHART TITLE - SUBROUTINE TOI#1

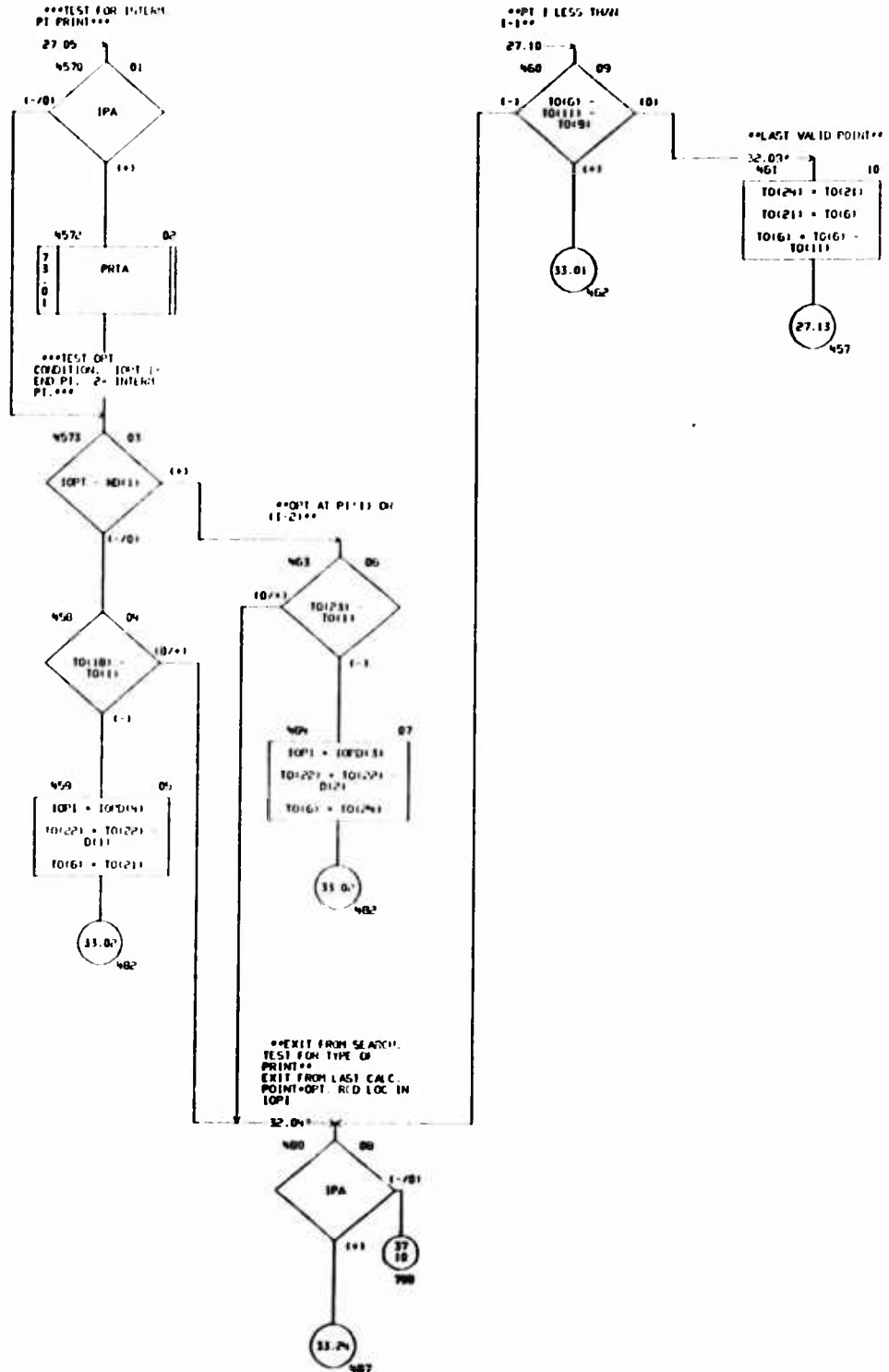


CHART TITLE - SUBROUTINE TBOP1

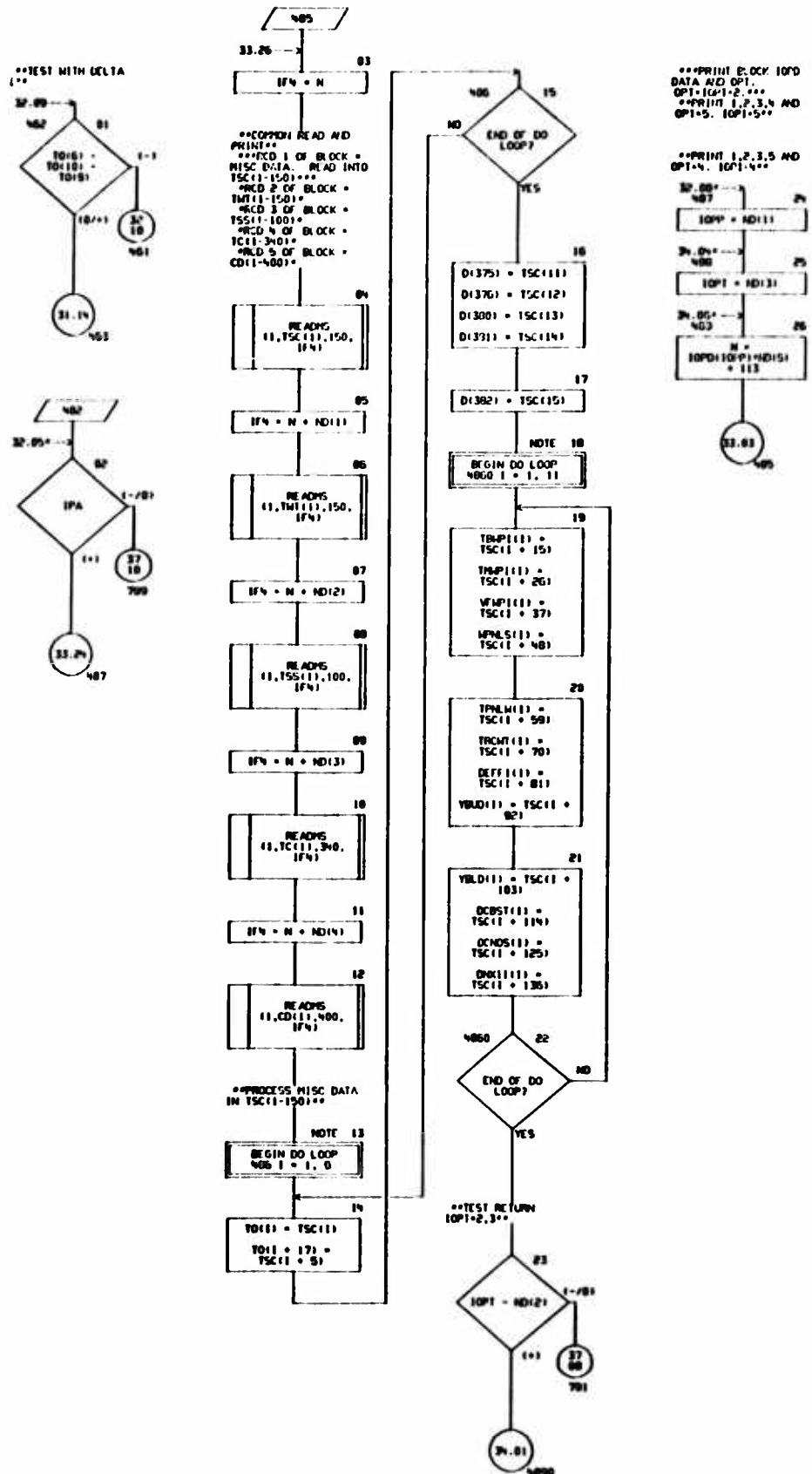


CHART TITLE - SUBROUTINE TROP1

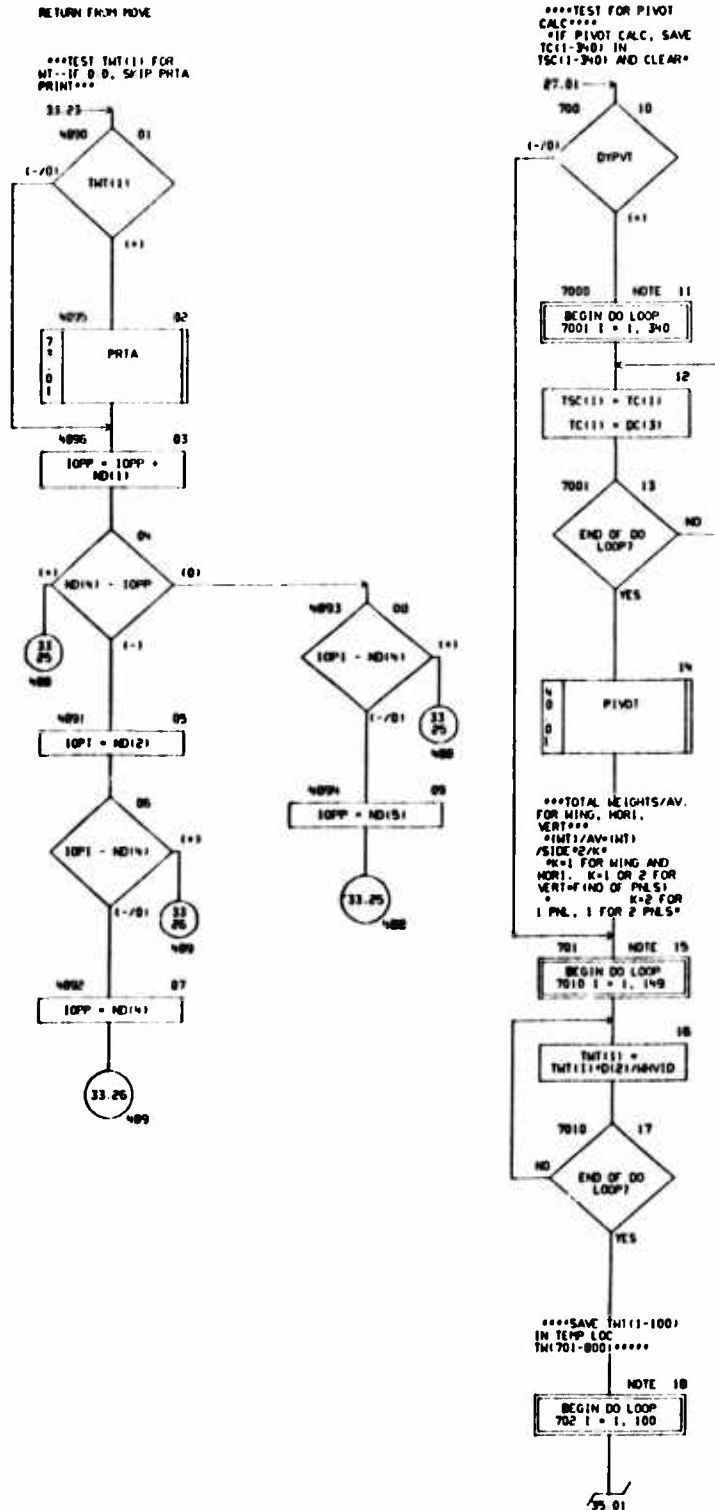


CHART TITLE - SLEEPING TIME

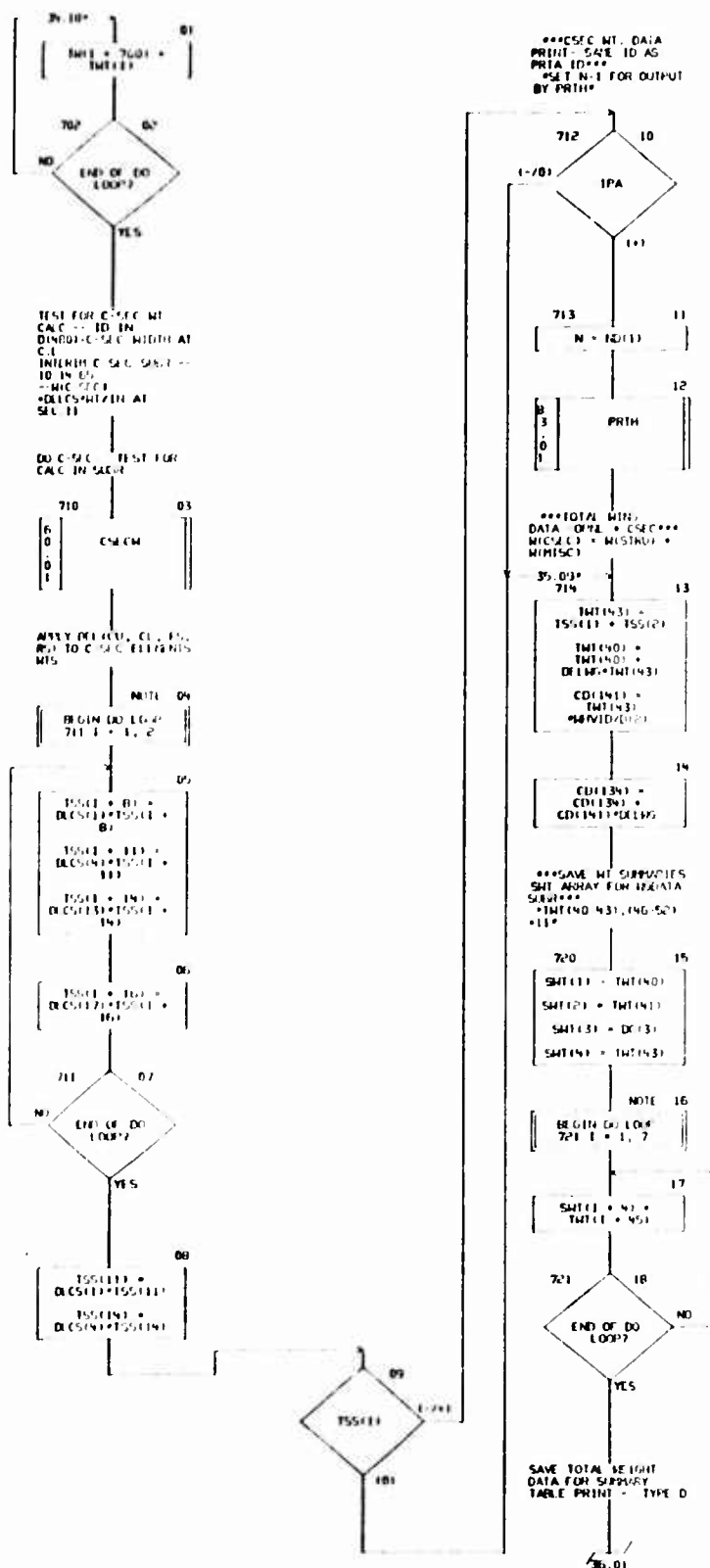


CHART TITLE - SUBROUTINE 16-PT

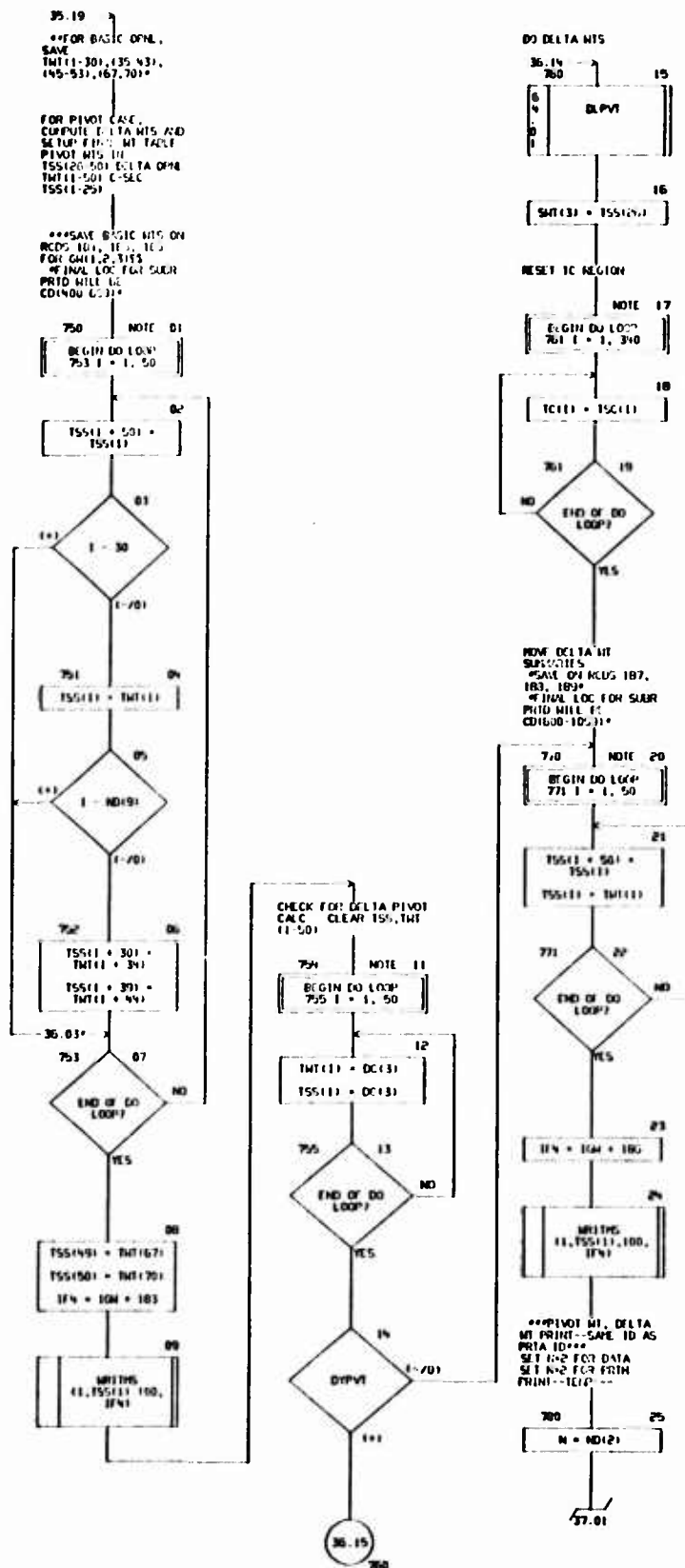


CHART TITLE - SUBROUTINE TEST1

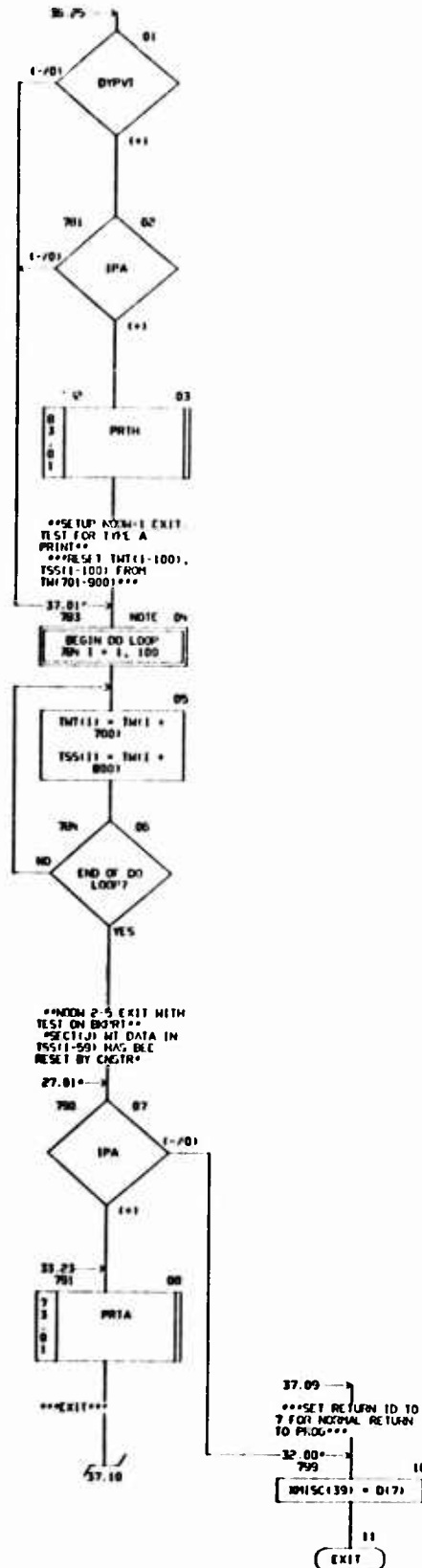


CHART TITLE - NATIONAL STATEMENTS

[illegible]

06/11/74

AUTOLON CHART SET - SHEEP WITH NO LIPSTUCK PLATE - PAGE 33

CHPT TITLE - INTERMEDIATE CONTENTS

*****SUBROUTINE PIVOT*****

PIVOT STRUCTURE SYNTHESIS AND RETORT EVALUATION

SUBROUTINE PIVOT

REVISION -01 21 65 - COMMENT TO NA 614 FERRAL 15TH
290PTOS ORIGINAL

CONVERT TO FORT IV MARCH 1972

CHART TITLE - SUBROUTINE PIVOT

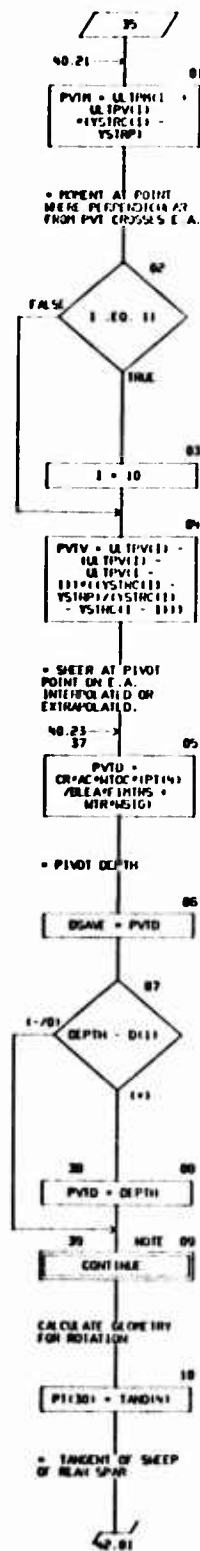


CHART TITLE - SHEEPWING PIVOT

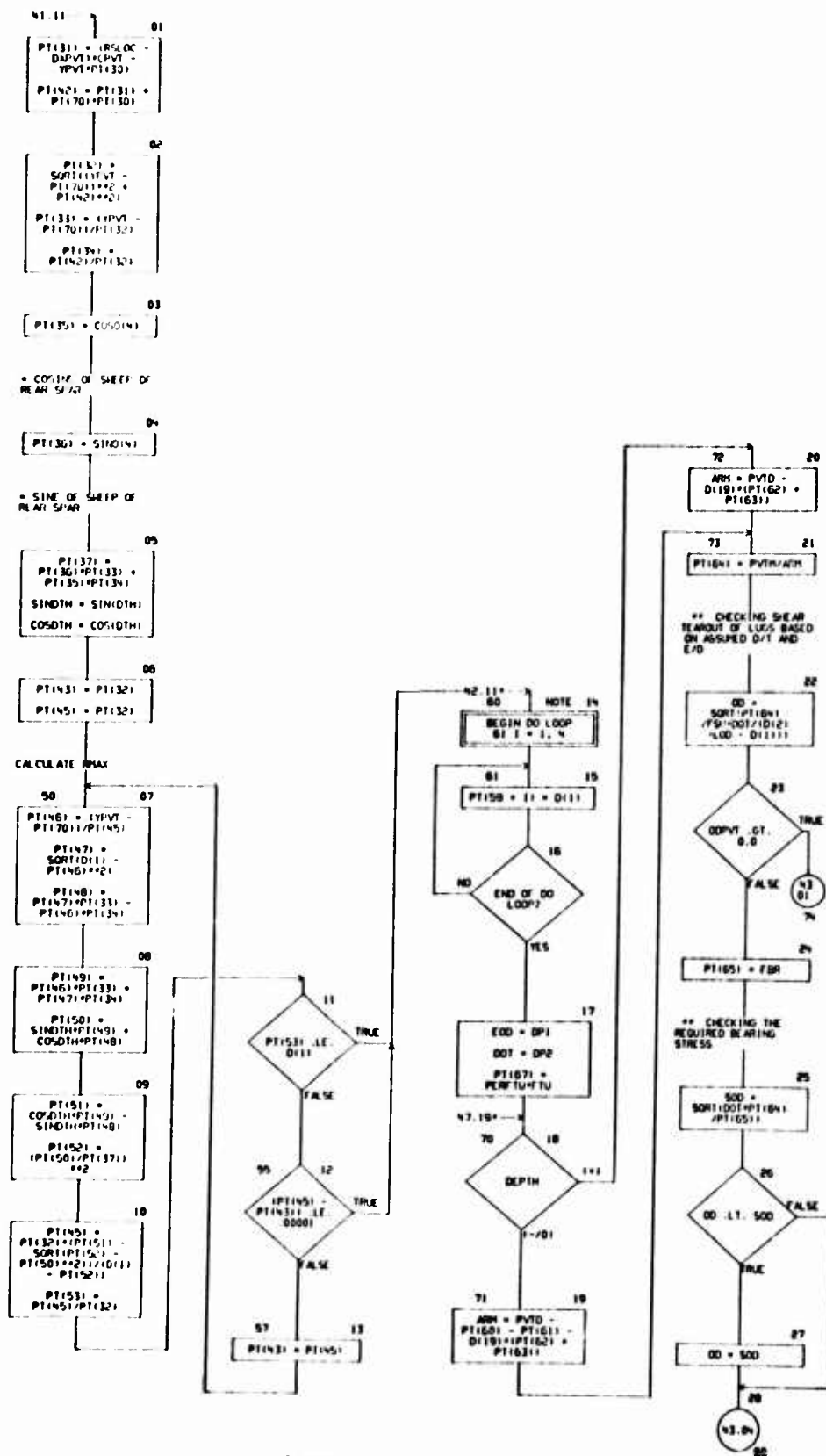
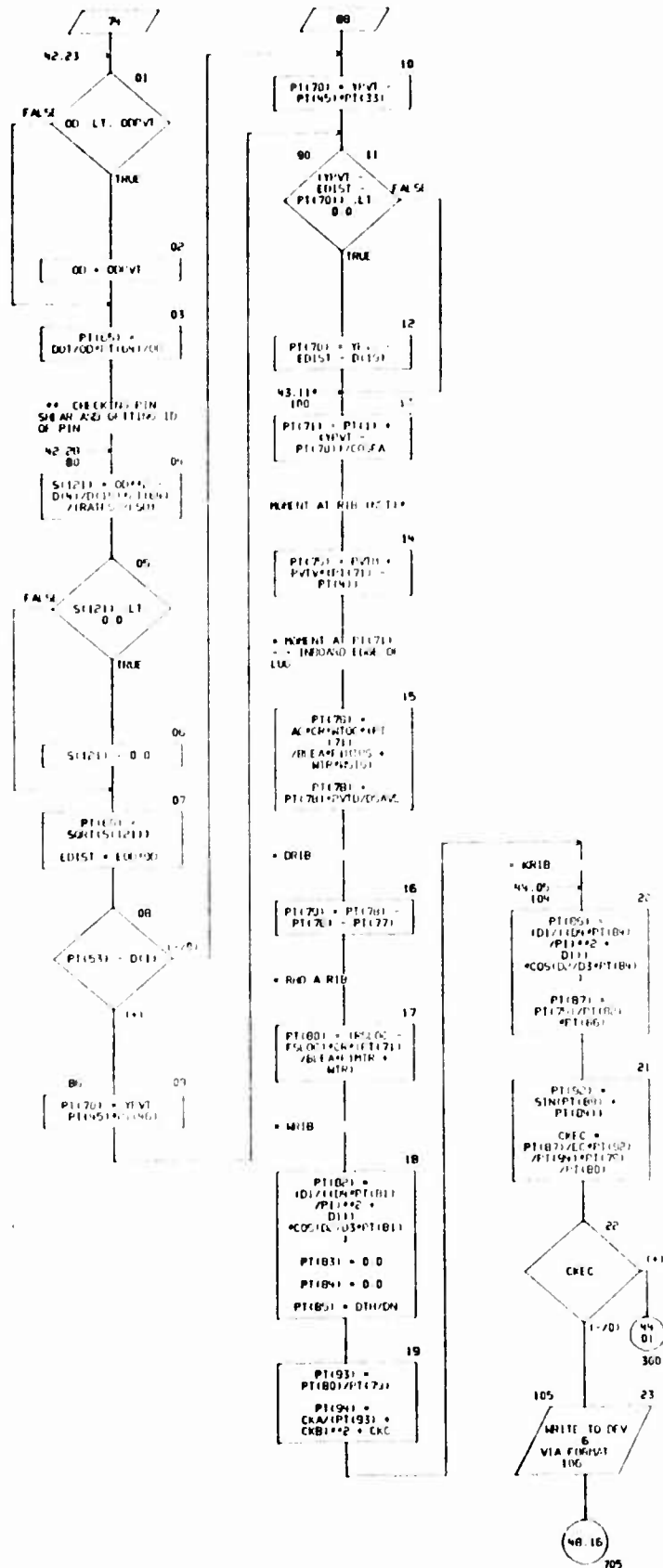


CHART TITLE - SUBROUTINE PIVOT



```

graph TD
    300 --> 01
    01 --> 02
    02 -- FALSE --> 03
    02 -- TRUE --> 04
    03 --> 04
    04 --> 05
    05 -- TRUE --> 06
    05 -- FALSE --> 07
    06 --> 08
    07 --> 08
    08 --> 09
    09 --> 104

```

300

01

PI(90) = CEC*DI(2)

PI(90) IS RIB
INIT=RESS

02

PI(90) GT
PI(10)

FALSE

TRUE

03

PI(10) = PI(5)

04

PI(10) = PI(10) +
PI(5)

05

(PI(100) +
PI(10)) LE
PI(10)

TRUE

FALSE

06

PI(90) = Y*V
PI(70)

PI(90) = (PI(100)
DIV*V)*CH

S(1) =
PI(90)/(SPAN
DI(2)*Y*V)
/SPAN*(MR +
MRI)

07

S(1) = S(1) -
PI(10)*PI(30)

S(2) =
CH*(SPAN -
DI(2)*PI(70))
/SPAN*(MR +
MRI) - S(1)

08

S(2) = (S(2) +
S(1))/(R(OC) -
FS(OC) - S(1))

S(3) =
SORT(S(1)+*2 -
PI(90)+*2)

S(4) =
SORT(S(2)+*2 -
PI(90)+*2)

09

S(5) =
SORT(S(3)+*2 -
ED(S)+*2)

S(6) =
SORT(S(4)+*2 -
ED(S)+*2)

S(7) =
PI(90)*S(6) +
S(2)*ED(S)

104

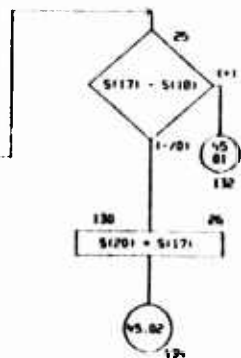
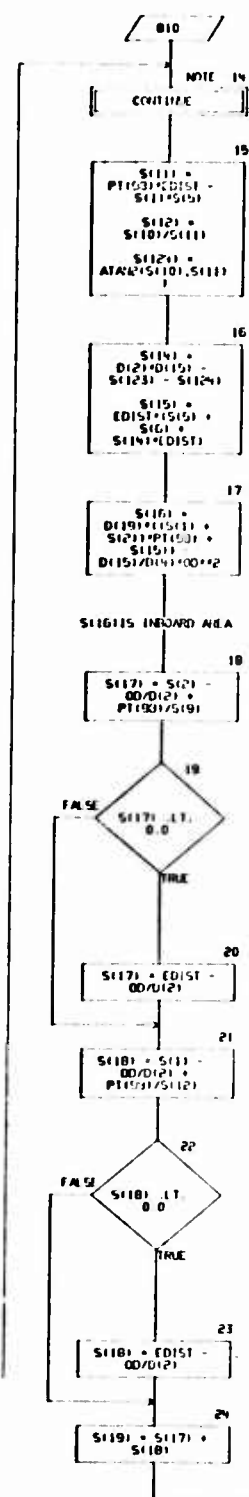
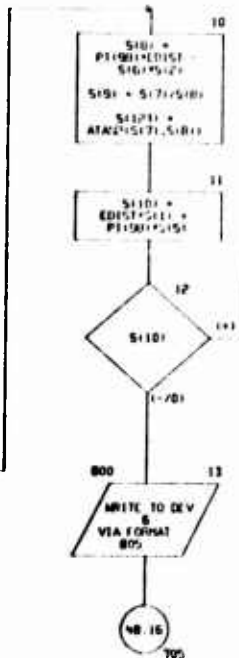


CHART TITLE - SUBROUTINE PIVOT

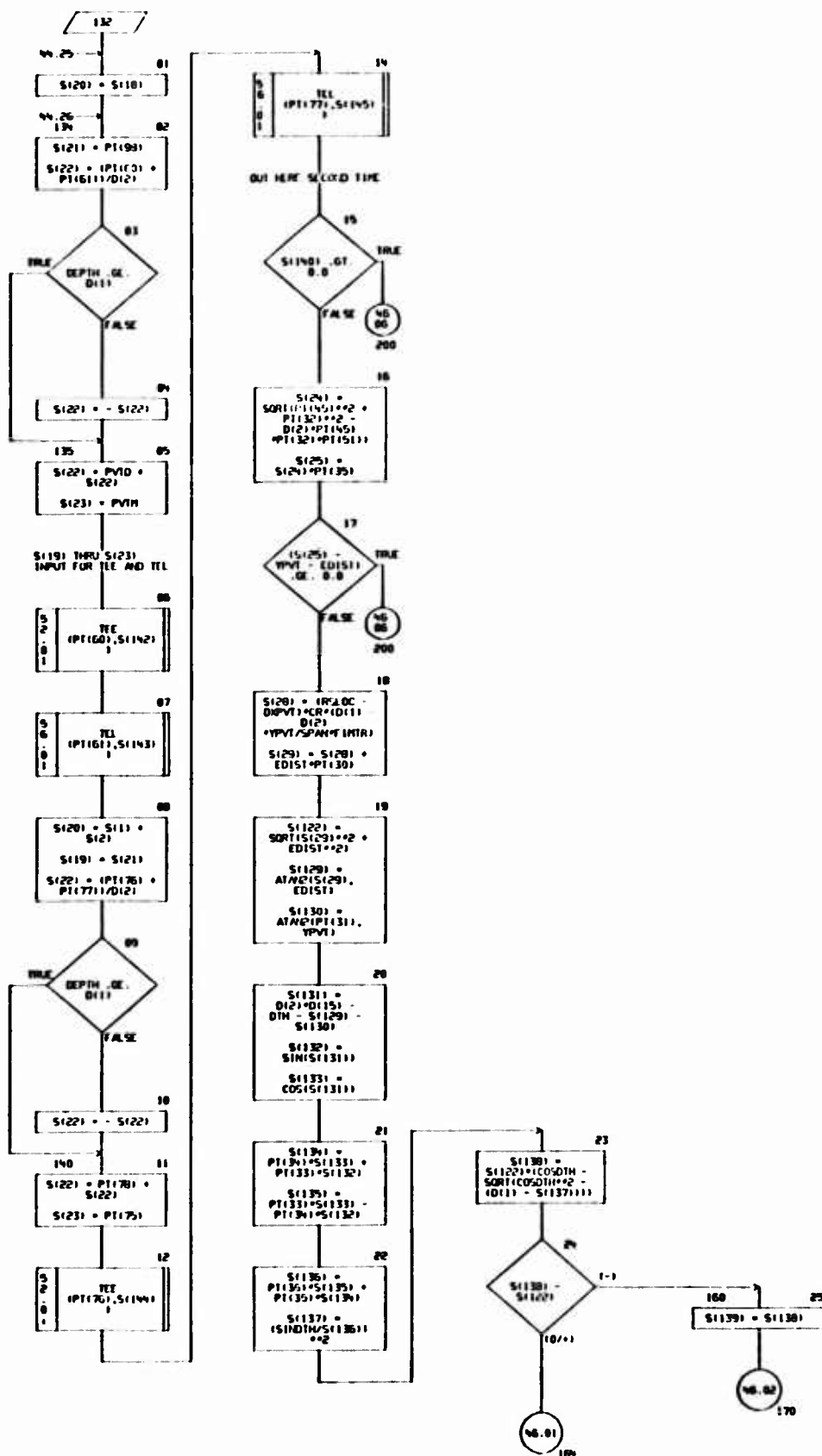


CHART TITLE - SUBROUTINE PIVOT

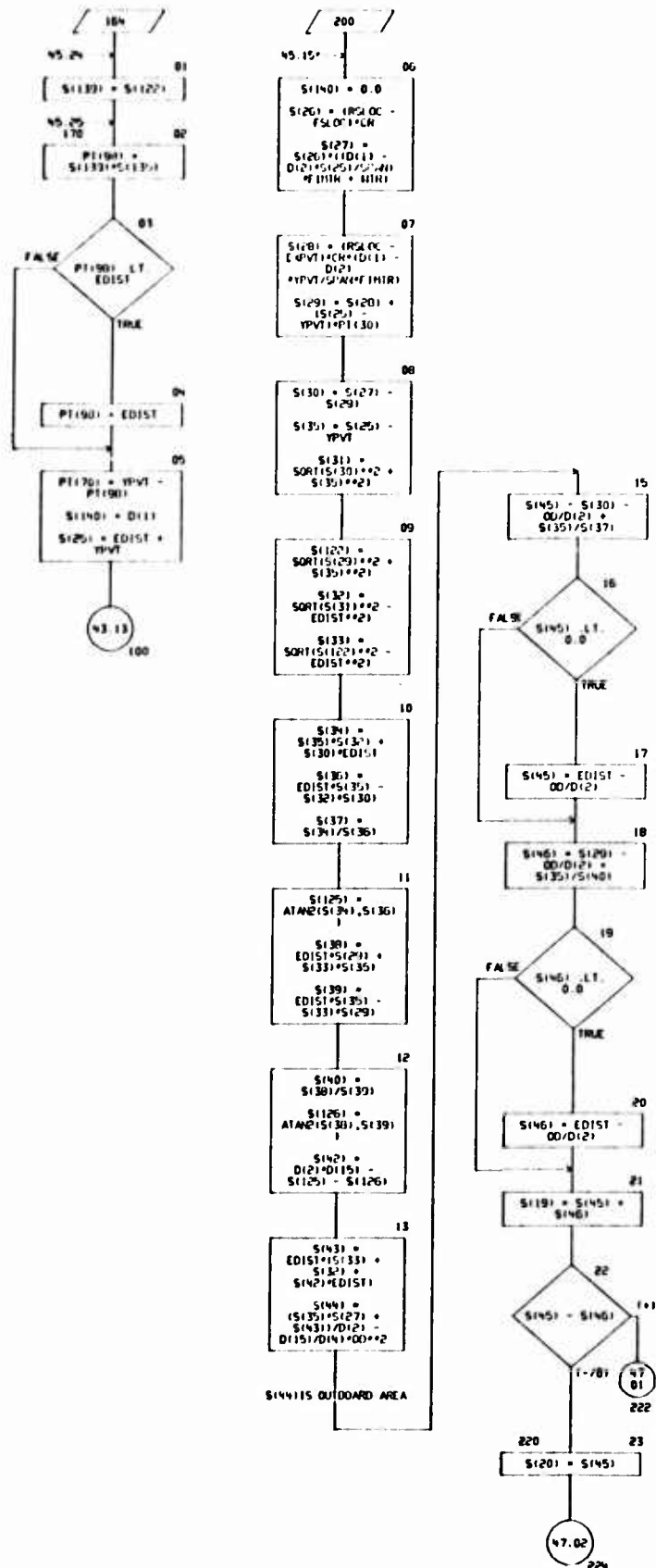


CHART TITLE - SUBROUTINE PIVOT

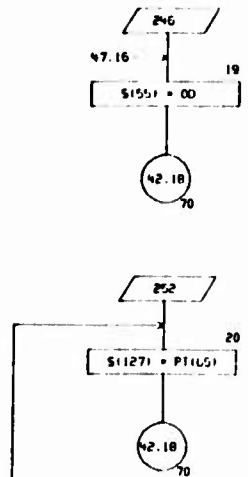
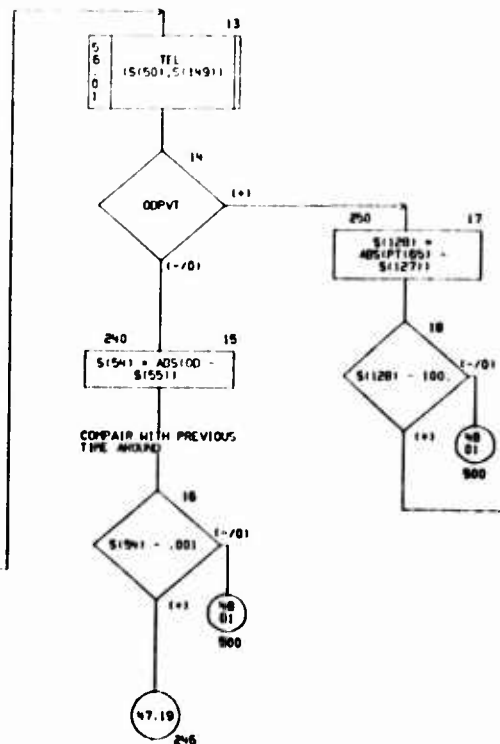
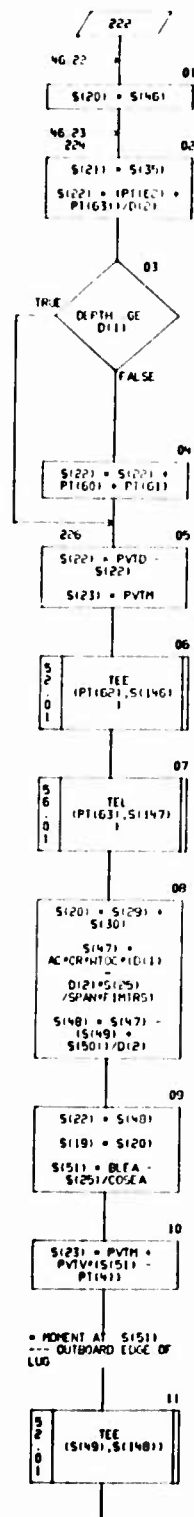


CHART TITLE - SUBROUTINE PIVOT

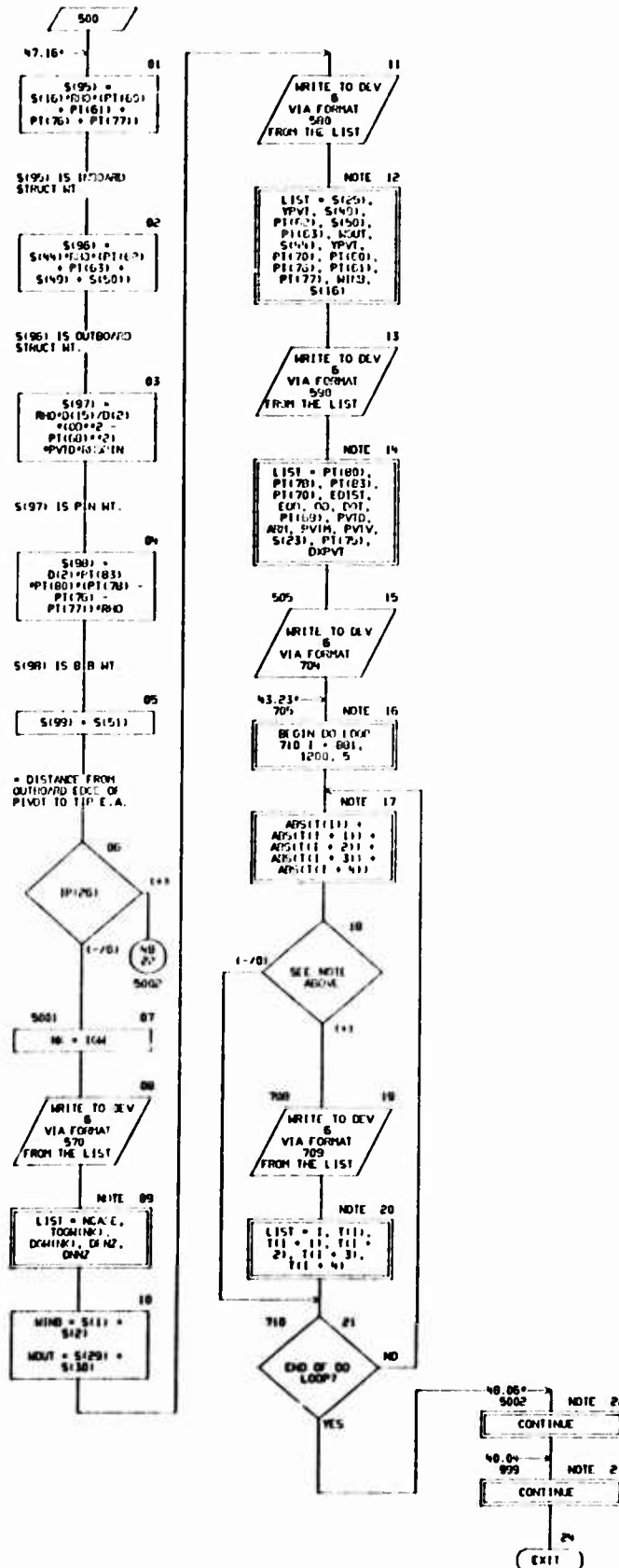


CHART TITLE - RY: PROCEDURAL STATEMENTS

```

COMMON TCON(6220),TW(900)
COMMON /PRINT/ IP(80)
DIMENSION T(2060), D(2060), CD(2000), S(200), P(100)
, A(51) TSEC(200), ULTPH(11), ULTPV(11), YSTRC(11)
, TCGH(3), T(413),ND(100)
, DNTLP(19), TAND(9),SIND(6), COSO(6)
EQUIVALENCE (TCON(1), T(1))
, (T(12),B02), (T(38),TAWAC), (T(70),FIPIR)
, (T(77),FIMTR), (T(78),FIMIRS), (T(81),FLEA)
, (T(45),CPV), (T(41),YSIFP), (T(52),CR)
, (T(140),SIND(1)), (SIND(3),SINCA)
, (T(146),COSO(1)), (COSO(3),COSEA)
, (T(122),TAND(1))
, (T(800),YPV), (T(90),P(1)), (T(100),S(1))
EQUIVALENCE (DNTLP(1),CD(100))
, (DNTLP(2),DN), (DNTLP(5),EC), (DNTLP(10),FIS)
, (DNTLP(11),RND), (DNTLP(12),FTU)
, (D(190),RAFSU), (D(191),R.LP(1)), (DNTLP(16),FSU)
EQUIVALENCE (P(10),PYTH), (P(110),PYTD)
, (P(18),PVT), (P(100),SPAN)
, (DNPVT,P(15)), (P(2),CKEC), (P(3),ARM)
, (P(130),DTH), (P(39),SINDTH)
, (P(140),COSDTH), (P(15),EOD), (P(55),DOT)
, (P(156),SOD), (P(166),OD), (P(169),EDIST)
, (TGM,ND(57)), (HCASE,ND(60)), (INPAC,ND(51))
, (TCGM(1),D(101)), (DGM(1),D(102)), (DNZ,1120)
, (DNZ,T(21)), (DNPRT,D(47)), (ND(1),TCON(612))
EQUIVALENCE (TCON(412),CD(1)), (CD(101),TSEC(1))
, (TSEC(1),ULTPH(1)), (TSEC(12),ULTPV(1)), (TSEC(166),YSTRC(1))
EQUIVALENCE (S(95), A(51))
EQUIVALENCE (TCON(2061),D(1))
, (D(124),AC), (D(125),FSLC), (D(126),FSLC)
, (D(127),LALC), (D(199),DN), (D(200),DNPVT)
, (D(201),JPVT), (D(202),THYMD), (D(203),THPAF)
, (D(240),WAREA), (D(241),WAR), (D(242),MSAP)
, (D(243),WIOC), (D(244),MTR), (D(245),MSIG)
, (D(192),CKA), (D(193),CKB), (D(194),CKC)
, (D(156),OP), (D(157),OP2), (D(189),PERTU)
, (D(186),DEPTH)
EQUIVALENCE (D(1),D1), (D(2),D2), (D(3),D3), (D(4),D4)
, (D(5),D5), (D(6),D6), (D(7),D7), (D(8),D8), (D(9),D9)
, (D(10),D10), (D(11),D11), (D(12),D12), (D(15),P1)
105 FORMAT (43H1 ERROR IN PIVOT, RIB THICKNESS IS NEGATIVE //
, 3H ? DUMP // )
805 FORMAT(1H1, 7H1 S(101)=0.0 AT LINE 2670 IN SUBROUTINE PIVOT WHICH M
ILL GIVE /0.0 AT LINE 2760. / 30H CHANGE THE INPUT DATA IN LOCATI
ON 201////)
570 FORMAT(1H1,80X,20H** PIVOT - IP(26) **/
, 1H ,5H CASE, 14,5X, 5H100M+, F9.1,2X, 4HDSH+, F9.1,
5X, 4H+NZ+, F6.3,2X, 4H-NZ+, F6.3)
580 FORMAT (1H0,15X , 8HOUTBD BP, 3X,7H1ED BP,3X,8H1U OUTBD,3X,
7H1U INBD,3X,8H1L OUTBD,3X, 7H1L INBD, 3X, 12HSPICE CHORD,6X,
7HAREA//13H OUTER LUG, 1X, 2F10.2,F11.4,F10.4,F11.4,F10.4,
F12.2,F10.0/13H INBD LUG,1X,2F10.2,F11.4,F10.4,F11.4,F10.4,
F12.2,F10.0)
590 FORMAT (1H0,4X,12H RIB WIDTH =,F10.2, 12H RIB DEPTH =,F10.2,
12H RIB 1 =, F10.4, 12H RIB B.P. =, F10.2//17H EDGE DIST
=, F10.2,3X, 5HED =, F10.2, 3X, 10HPIN O.D. =,F6.2 ,3X
9HODT =, F6.2, 3X,10HPIN I.D. =,F10.2//17H PIVOT
F10.2,3X,12HCOUPLC ARM =, F10.2,3X,10HPIVOT PK =,E13.5,3X,
10HPIVOT SZ =,E13.5 //1H ,4X,10HPK OUTBD =, E13.5 , 3X,
9HPK INBD = , E13.5 / 5X, 7HNPVT =, E13.5 )

```

06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 50

CHART TITLE - NON-PROCEDURAL STATEMENTS

704 FORMAT (1H1, 5X, 15H1 AT END PIVOT //)

709 FORMAT (117, 5E10.7)

06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EQUIVALENCE MODULE - PWA 51

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE TEE*****

PIVOT DESIGN/SYNTHESIS DATA EVALUATION

SUBROUTINE TEE

USED BY PIVOT

ORIGINAL 4 OCT 65

REVISED - 01 21-66- CONVERT TO WAGEN FORMAT--STR--

CHANGED FOR 3.0 FORTHAN IV MATCH 70

USE COMMON AND EQUIVALENCE FROM PIVOT 3 70

05/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 50

CHART TITLE - NON-PROCEDURAL STATEMENTS

704 FORMAT (1H1, 5X, 15H1 AT END PIVOT //)
709 FORMAT (117, 5E10.7)

06/11/74

AUTOFLOW CHART SET - SHEEP - WING AND EVIDENCE MODULE - PAGE 51

CHART TITLE - INTRODUCTION COMMENTS

*****SUBROUTINE TEE*****

PIVOT DESIGN/SYNTHESIS DATA EVALUATION

SUBROUTINE TEE

USED BY PIVOT

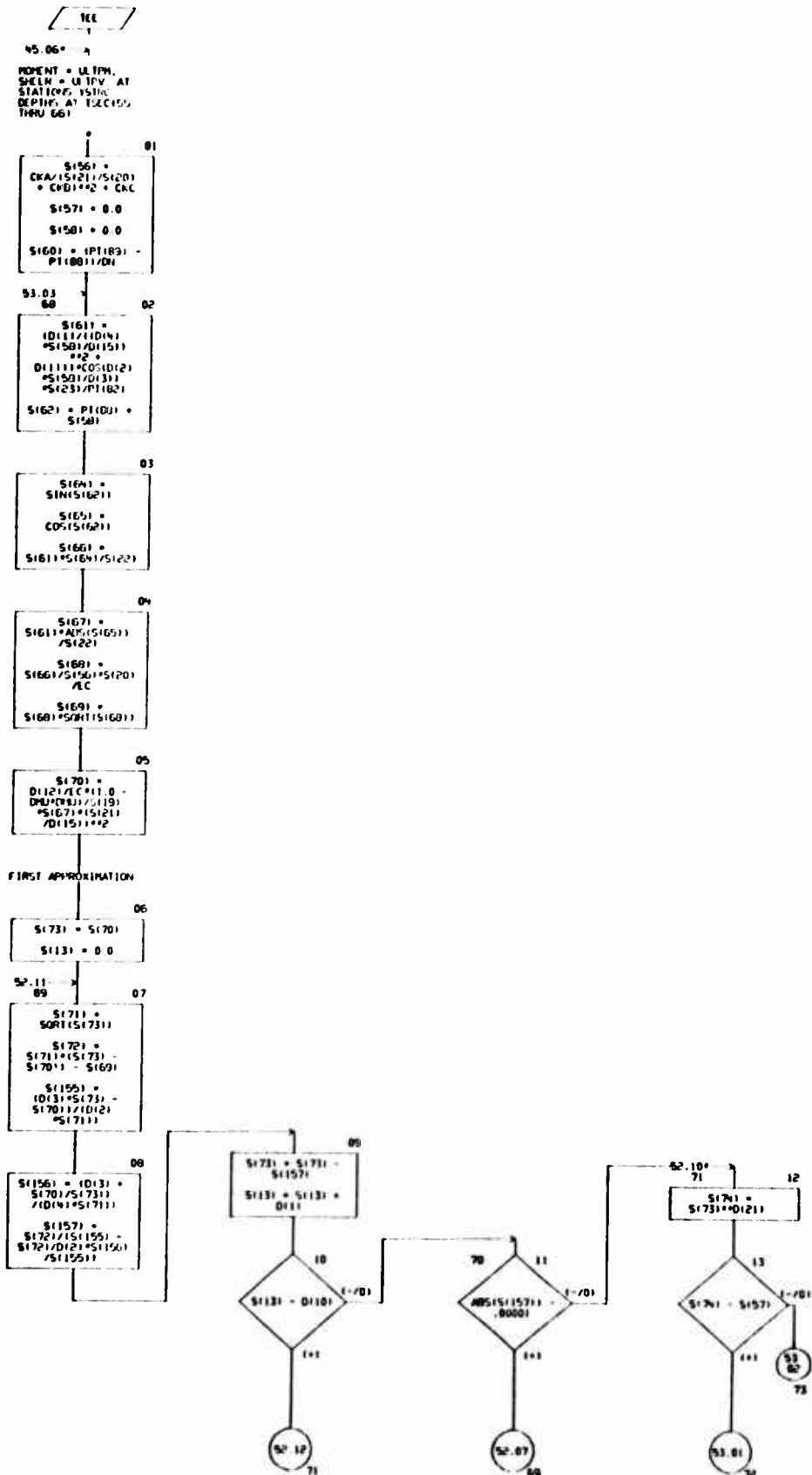
ORIGINAL 4 OCT 65

REVISED - 01-21-66 - CONVERT TO NAGIN FORMAT -STR-

CHANGED FOR 3RD FORTHWAY IV - MARCH 74

USE COMMON AND EQUIVALENT FROM PIVOT 3 72

CHART TITLE - SUBROUTINE TEECHTTT,TTX



05/11/79

AUTOFLOW CHART SET - SHEEP WING AND EMPLOYEE MODULE - PAGE 53

CHART TITLE - SUBROUTINE TEE(TTI,TTX)

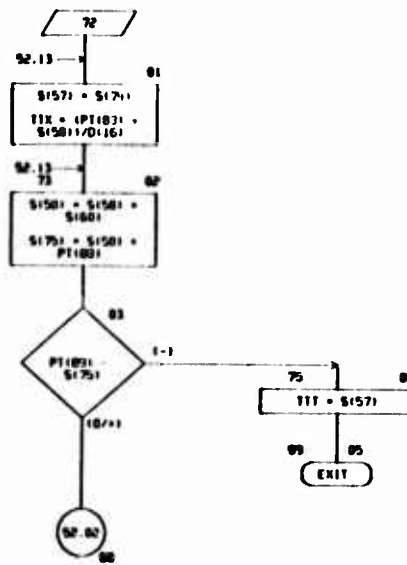


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON TCOM(6220),TH(900)
DIMENSION T(2060), D(2060), CD(2000), S(200), PT(160)
, ANG(5), TSEC(200), ULTFM(11), ULTPV(11), YSTRC(11)
, TOGH(3), DGH(3), ND(100), PD(12)
, DMPLP(17), TAN(9), SIN(6), COS(6)
EQUIVALENCE (TCOM(1), T(1))
, (T(12), DO2), (T(38), TANAC), (T(70), FIPTR)
, (T(77), FIMTR), (T(78), FIMHS), (T(81), BLEA)
, (T(95), CPVT), (T(91), YSTRP), (T(52), CR)
, (T(140), SIN(11)), (SIN(3), SIN(A)
, (T(146), COS(11)), (COS(3), COS(A)
, (T(127), TAN(11))
, (T(900), YPVT), (T(901), PT(11)), (T(1001), S(11))
EQUIVALENCE (DMPLP(1), CD(1905))
, (DMPLP(2), DM), (DMPLP(5), EC), (DMPLP(10), FTS)
, (DMPLP(11), R40), (DMPLP(12), FTU)
EQUIVALENCE (PT( 9), PVTM), (PT(10), PVT0)
, (PT(8), PVT), (PT(100), SPAN)
, (DX(VT), PT(5))
, (PT(38), DTH), (PT(39), SINDTH)
, (PT(40), COSDTH), (PT(54), EOD), (PT(55), ODI)
, (PT(56), SOD), (PT(66), OD), (PT(69), EDIST)
, (TOGH(1), D(801)), (DGH(1), D(102)), (DMZ, T(20))
, (DMZ, T(21)), (DMZT, D(474)), (ND(1), TCOM(6121))
, (PD(1), D(2055))
EQUIVALENCE (TCOM(121), CD(11)), (CD(1501), TSEC(11))
, (TSEC(11), ULTFM(11)), (TSEC(12), ULTPV(11)), (TSEC(166), YSTRC(11))
EQUIVALENCE (S(95), ANG(1))
EQUIVALENCE (TCOM(2061), D(1))
, (D(124), AC), (D(125), FSL(OC), (D(126), RSL(OC)
, (D(127), EAL(OC), (D(195), FBR)
, (D(198), ODPVT), (D(199), DM), (D(200), DTPVT)
, (D(201), XPVT), (D(202), THPFMD), (D(203), THPAFT)
, (D(240), WAREA), (D(241), WAT), (D(242), WSWP)
, (D(243), WLOC), (D(244), WTR), (D(245), MSG)
, (D(192), CKA), (D(193), CKB), (D(194), CFC)
, (D(156), DP1), (D(157), DP2), (D(189), PEN(10)
, (D(186), DEPTH)

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06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMERGENCY MODULE - PAGE 55

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE TEL*****

PIVOT DESIGN/SYNTHESIS DATA EVALUATION

SUBROUTINE TEL

USED BY PIVOT

ORIGINAL	50CT05	
REVISION	1-21-66	CONVERT FOR 4' CIN STR
REVISION	MARCH72	CHANGE TO FORTRAN IV

CHART TITLE - SUBROUTINE TELTLE, TX)

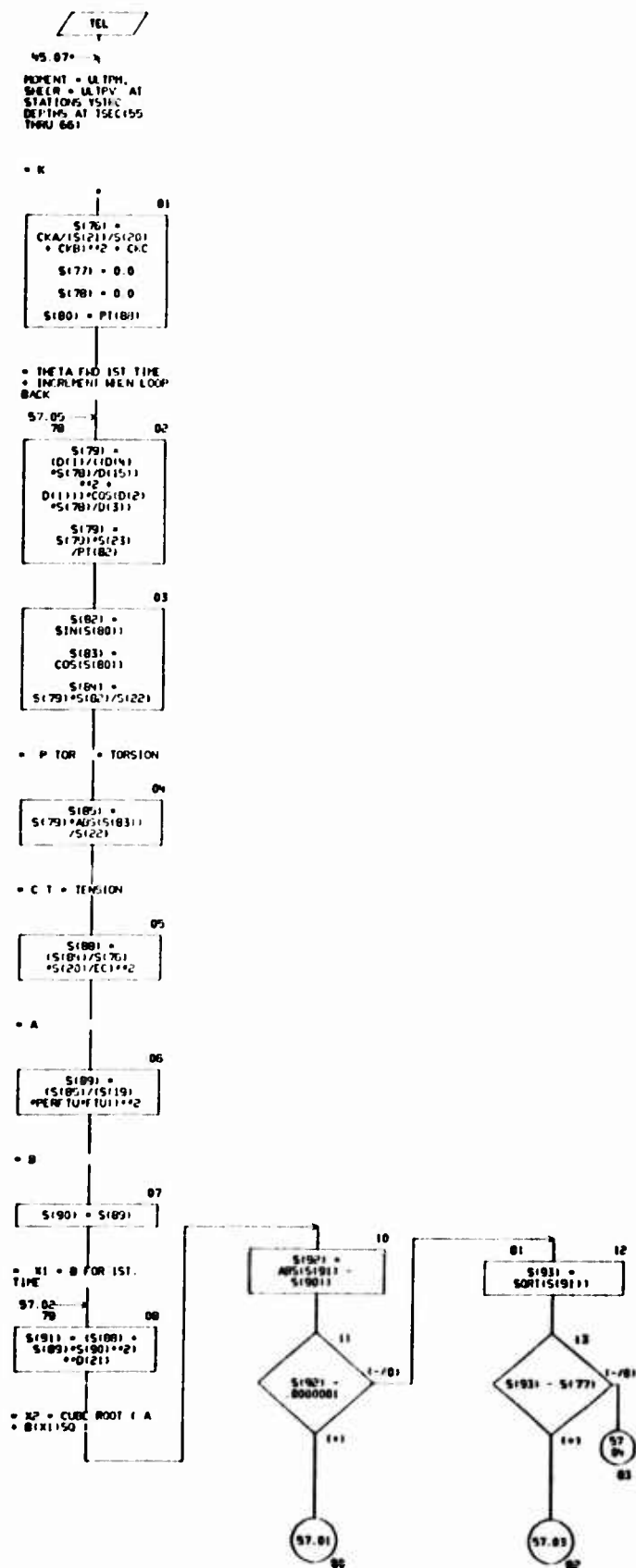


CHART TITLE - SUBROUTINE TEL(TL, TX)

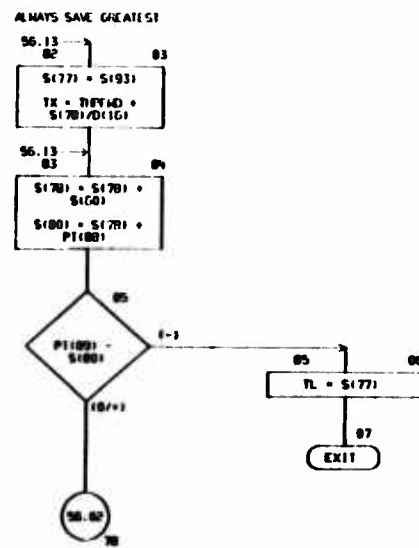
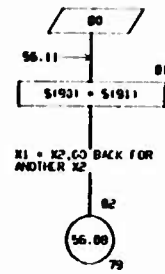


CHART TITLE - NON PROCEDURAL STATEMENTS

```

COMMON  TCOM(620),TW(900)
DIMENSION T(2000), D(2000), CD(2000), S(2000), PT(100)
, ANG(5), TSEC(200), ULTPH(1), ULTPV(1), YSINC(1)
, TOGH(3), DGH(3),ND(100),PDATE(2)
, DHTLP(17), TAND(9),SIND(1), COSO(6)
EQUIVALENCE (TCOM(1), T(1))
, (T(12),BO2), (T(30),TANAC), (T(70),FIPR)
, (T(77),FIMTR), (T(78),FIMTR5), (T(81),BLEA)
, (T(95),CPVT), (T(91),YSIRP), (T(52),CR)
, (T(140),SIND(1)), (SIND(3),SINEA)
, (T(146),COSO(1)), (COSO(3),COSEA)
, (T(122),TAND(1))
, (T(900),YPVT), (T(901),PT(1)), (T(1001),S(1))
EQUIVALENCE (DHTLP(1),CD(1905))
, (DHTLP(2),DHU), (DHTLP(15),EC), (DHTLP(10),FTS)
, (DHTLP(11),RHO), (DHTLP(12),FTU)
EQUIVALENCE (PT( 9),PCTH), (PT(10),PYVD)
, (PT(8),PYTV), (T(100),SPAN)
, (DHPVT,PT(5))
, (PT(38),DTH), (PT(39),SINDTH)
, (PT(40),COSO(1)), (PT(54),ECO), (PT(55),DOT)
, (PT(56),SOD), (PT(66),OD), (PT(69),EDIST)
, (TOM,ND(57)), (INAGE,ND(60)), (INPAGE,ND(85))
, (TCOM(1),D(80)), (DGH(1),D(102)), (DPH2,T(20))
, (DPH2,T(21)), (DPHRT,D(147)), (ND(1),TCOM(121))
, (PDATE(1),D(205))
EQUIVALENCE (TCOM(121),CD(1)), (CD(150),TSEC(1))
, (TSEC(1),ULTPH(1)), (TSEC(12),ULTPV(1)), (TSEC(166),YSINC(1))
EQUIVALENCE (S(95), ANG(1))
EQUIVALENCE (TCOM(206),D(1))
, (D(124),AC), (D(125),FSLOC), (D(126),RSLOC)
, (D(127),EALOC), (D(195),FBR)
, (D(198),ODPVT), (D(199),DH), (D(200),DYPVT)
, (D(201),MPVT), (D(202),THPTMD), (D(203),THPTFT)
, (D(240),WAREA), (D(241),WAR), (D(242),MSAP)
, (D(243),MTOC), (D(244),MTR), (D(245),MSG)
, (D(192),CKA), (D(193),CKB), (D(194),CKC)
, (D(156),DP1), (D(157),DP2), (D(189),PERFTU)
, (D(186),DEPTH)
EQUIVALENCE (D(1),D1), (D(2),D2), (D(3),D3), (D(4),D4)
, (D(5),D5), (D(6),D6), (D(7),D7), (D(8),D8), (D(9),D9)
, (D(10),D10), (D(11),D11), (D(12),D12), (D(15),P1)

```

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE CSECH*****

CENTER-SECTION HEIGHT EVALUATION

CHART TITLE - SUBROUTINE CSECH

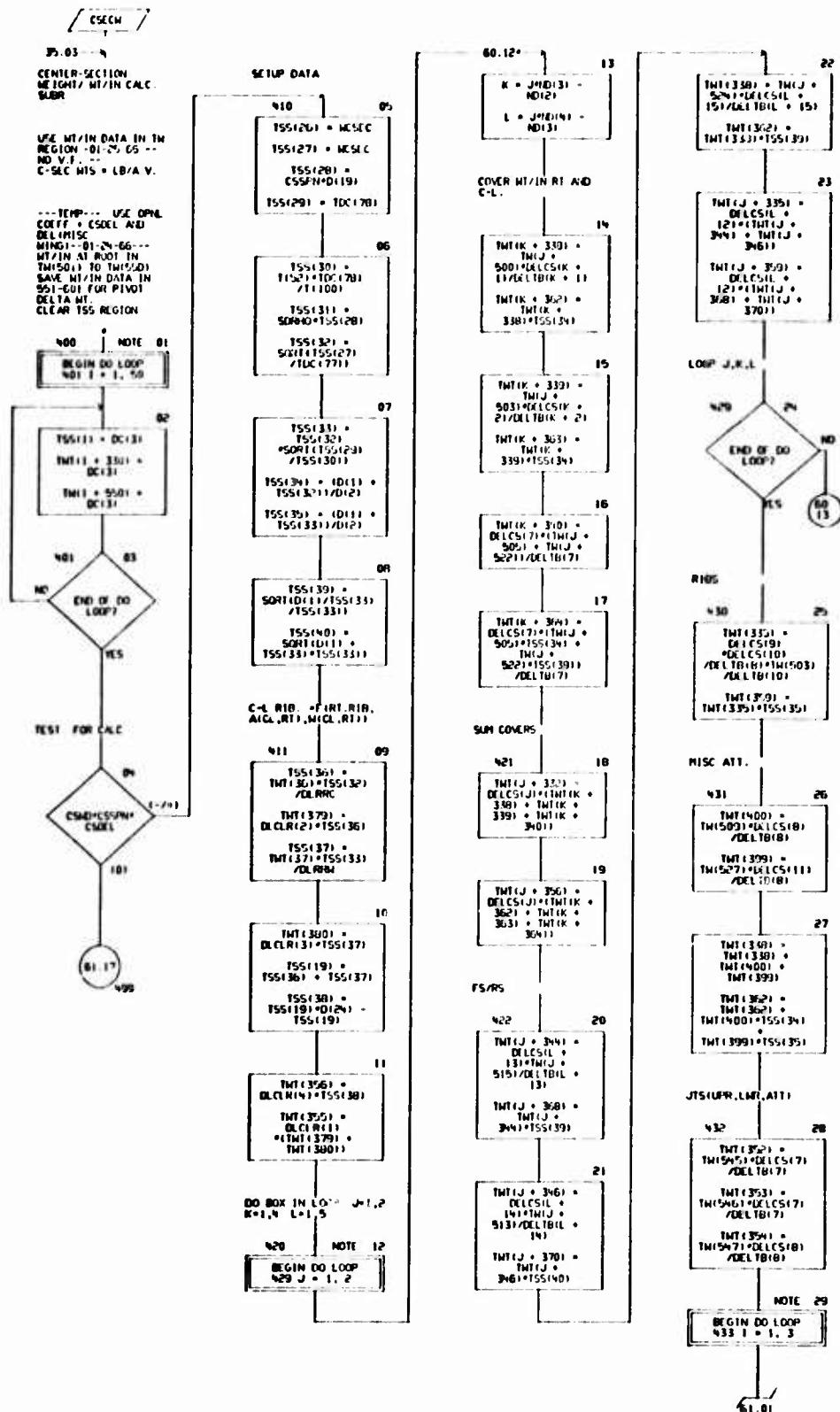


CHART TITLE - SUBROUTINE CSECH

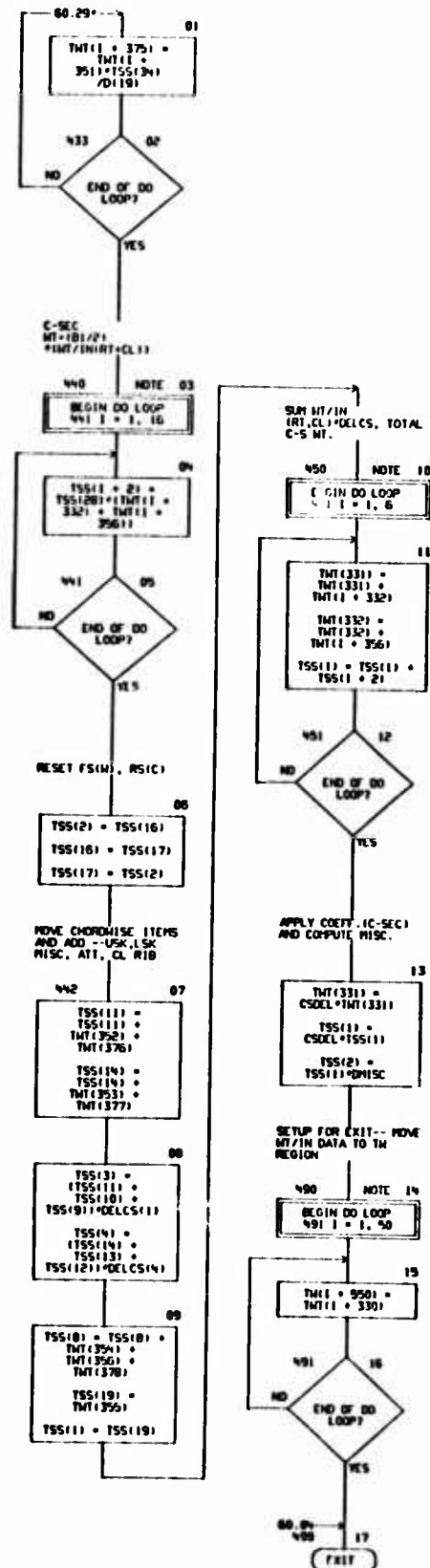


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON TCOM(7120)
DIMENSION T(2000),D(2000),C( 7000),ND(100),DC(100),
TDC(200),TSC(420),TSS(150),TMT(400),TSEC(300),TMS(20),
VSTRC(11),
DELCS(20),DCUR(4),
DELTB(30)
EQUIVALENCE (T(1),TCO(1)),(D(1),TCO(2001)),(C(1),TCO(4121)),
(ND(1),TCO(6121)),(T(1),TCO(8121)),
(DC(1),D(1401)),(TDC(1),T(1341)),(TSC(1),T(1541)),
(TSS(1),T(1551)),(TMT(1),C(1101)),(TSEC(1),C(1501)),
(VSTRC(1),TSEC(1061)),
(ISO(1),TMT(1751)),(DN(1),T(1191)),
(ISO(1),D(1401)),(CS(1),D(1261)),(HSEC(1),T(151)),
(CS(1),D(1401)),(DELCS(1),D(1402)),(DCUR(1),D(1502)),
(DELTB(1),TMT(251)),(C(1),C(1102)),(C(1),C(1103)),
(1,ND(20)),(1,ND(29)),(1,ND(30)),(1,ND(31))
```

CHART TITLE - INTERLOCKING COMMENTS

*****SUBROUTINE D.P.T*****

EVALUATION OF T-BOX STRUCTURE REPLACED BY PIN

DLPVT

SAVE MY SUPPLY IN
ISS(21-48)

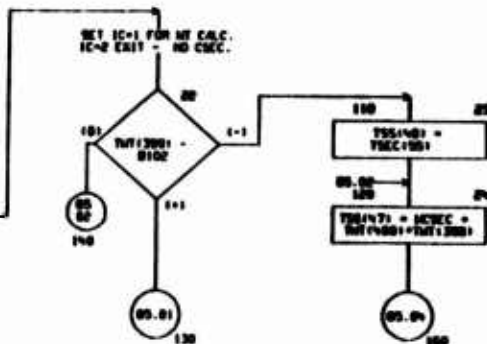
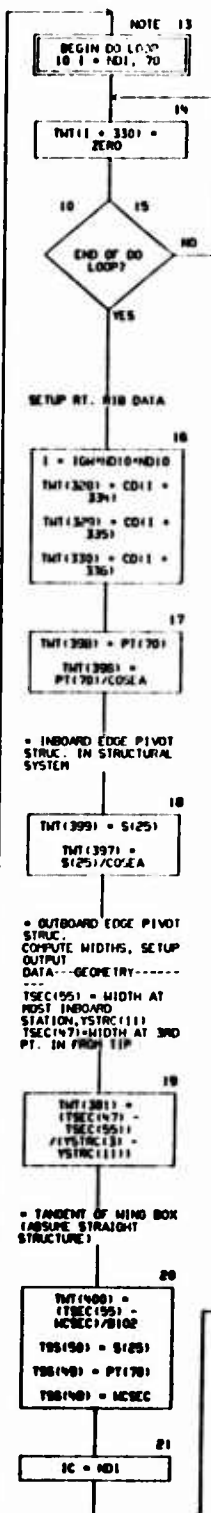
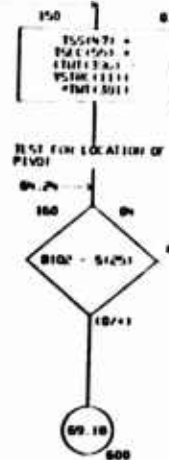
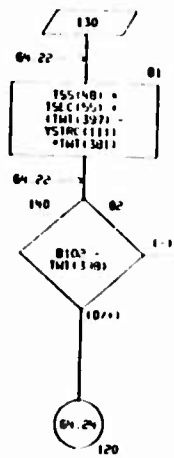
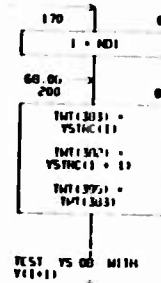


CHART TITLE - SUBROUTINE DLPV1



PIVOT OUTLINED OF
 B1/2
 SET UP PANEL MI CALC
 10 PIVELS



TEST VS 00 WITH
 $Y11(1)$

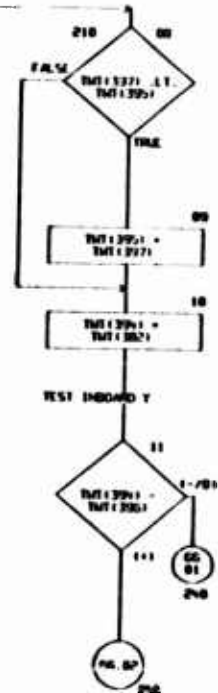
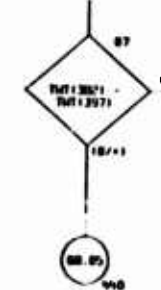


CHART TITLE - SUBROUTINE DLPVT

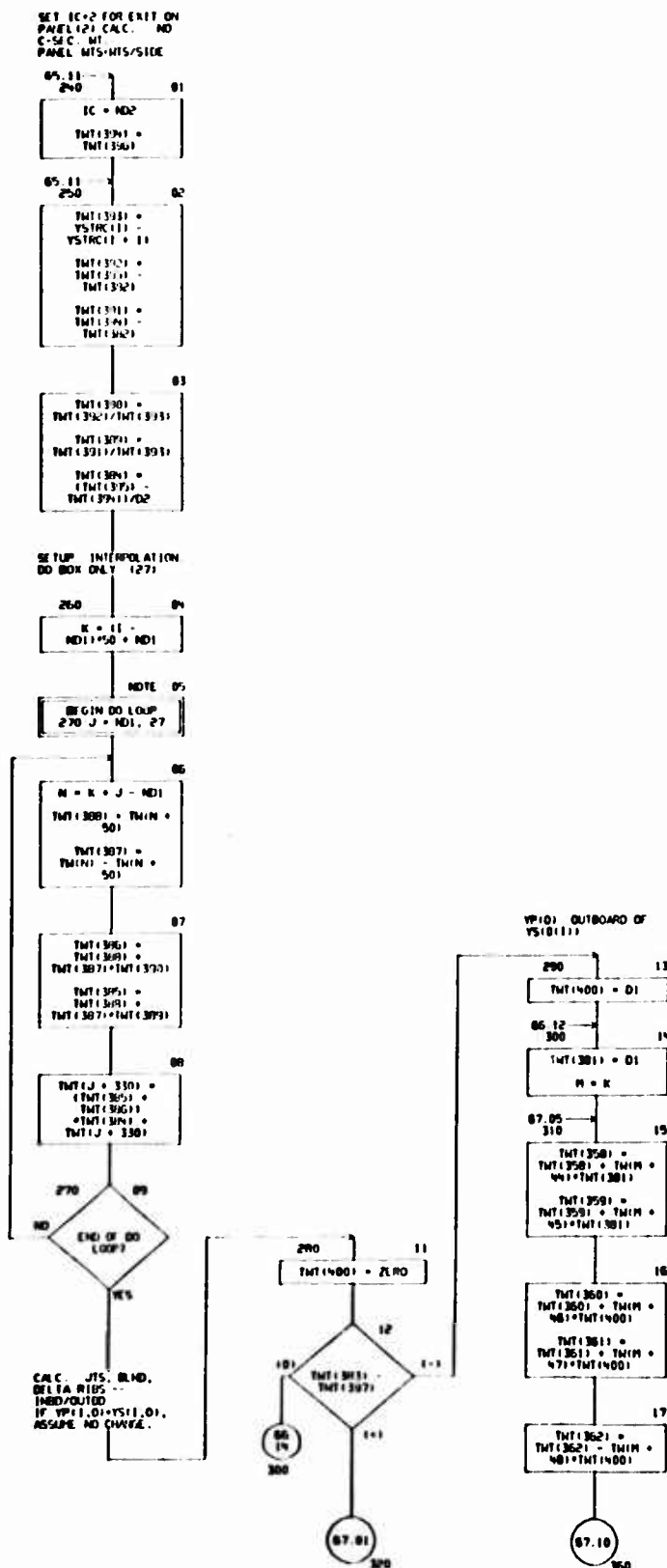
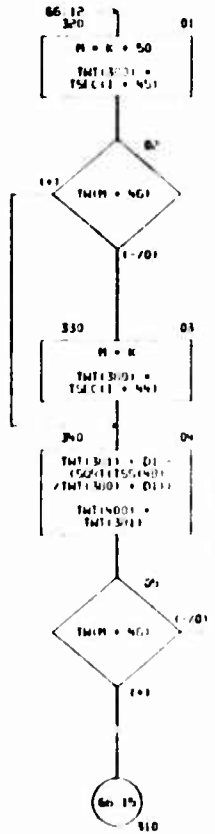
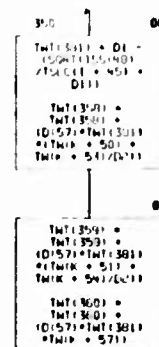


CHART TITLE - SUBROUTINE DLPV1

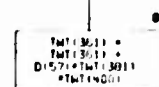
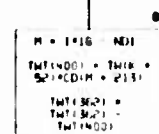
YP101: INED OF
YS101111... AND JOINT
MT. TEST INED AND
OUTRO
COMPUTE WIDTH OF
YP101



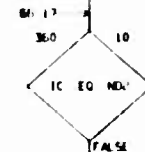
NO BLIND, INED ON
OUTRO USE INED
DATA



PT-BAR(LINE)



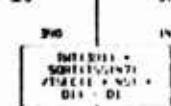
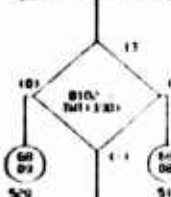
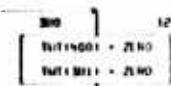
DO INED P10 ONLY
WHEN IC=2



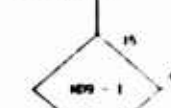
GO TO LOOP BACK



IC=2



TEST PAIR NO



TEST INED OF INED




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graph TD
    Start(( )) --> 67.16[67.16]
    67.16 --> 81[N = 10]
    81 --> 82[TMT(301) = D1 - SQRT(1551471) / 155C(1) + N * D1]
    82 --> 83{83}
    83 --> 84{84}
    84 --> 85{85}
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CHART TITLE - SUBROUTINE DLPVT

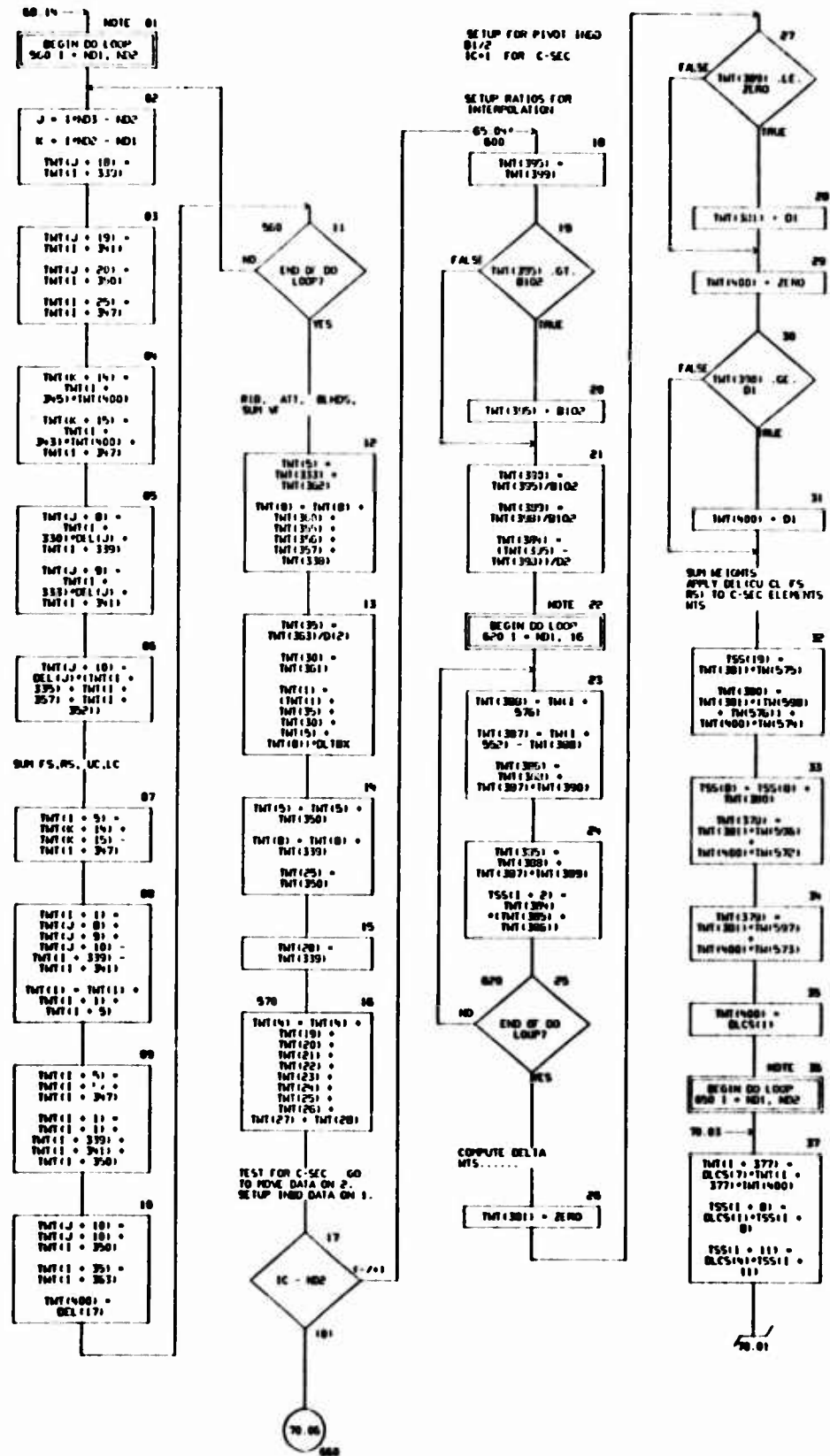


CHART TITLE - SEROTINE DEPVT

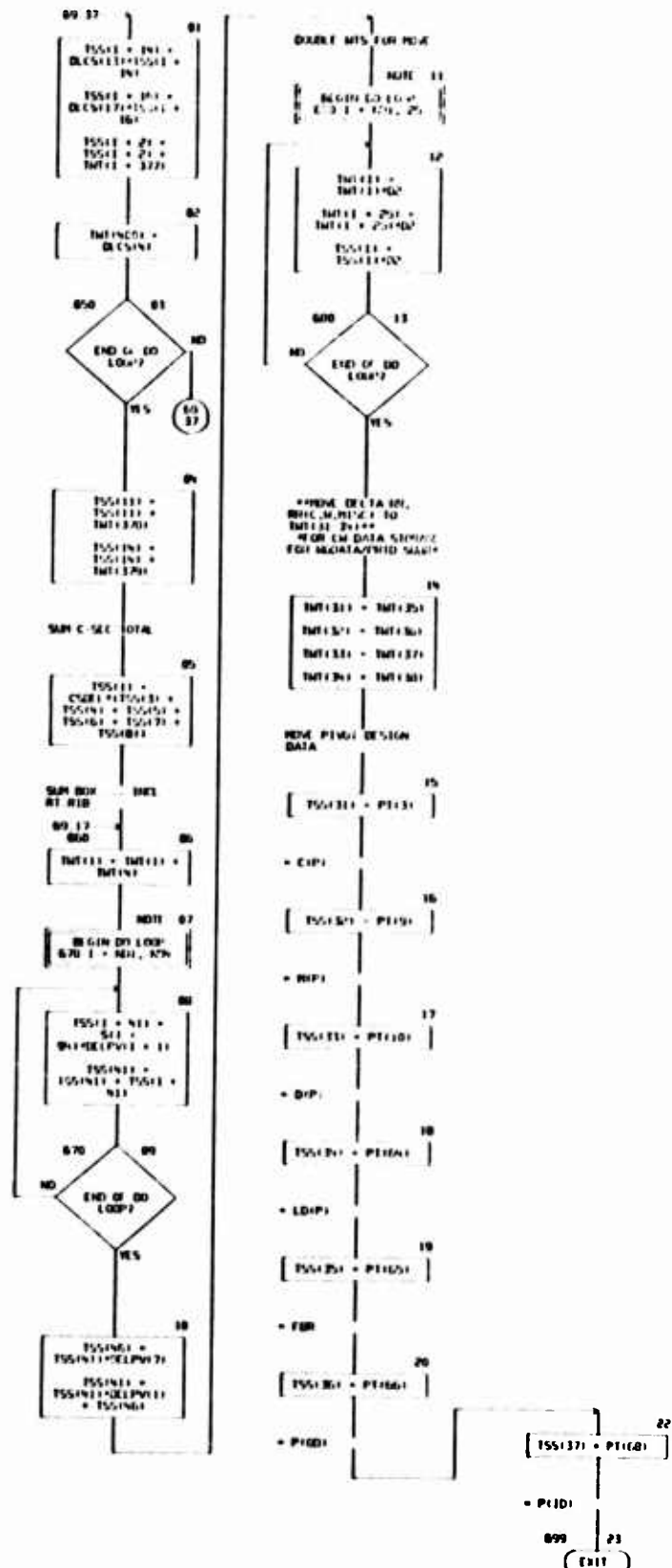


CHART TITLE - NEW PROCEEDING STATEMENTS

```

COMMON /COMMON2001, /TH9001
COMMON /F1R101, /F1R001

DIMENSION F1(2000), D1(2000), C1(2000), ND(100)
,DC1(100), TDC1(200), TSC1(200), TSS1(100), THT1(400)
,TSC1(300), PT1(100), S1(200), YSTRC1(10), DEL1(30)
,DELPM1(2), DCS1(20)

EQUIVALENCE (F1CON1(1),T1(1), (F1CON1(206(1),D1(1)
,(F1CON1(21),C1(1)), (F1CON1(21),ND(1))
EQUIVALENCE (T1(1), B1(0)), (T1(0), B1(50)
,(T1(70),CON1(1), (T1(100),S1(1)), (T1(34),TDC1(1)
,(T1(154),TSC1(1)), (T1(155),TSS1(1)), (T1(90),PT1(1)
EQUIVALENCE (D1(100),C1(20), (D1(40),TSC1(1)
,(D1(402),DCS1(1)), (D1(50),DELPM1(1)), (D1(101),DC1(1)
,(DC1(1),ZER0), (D1(1),D1(1), (D1(2),D1(1)
,IMSEC,T1(1)
EQUIVALENCE (CD1(101),T1T1(1), (CD1(9),T1(100)
,(T1T1(25),DEL1(1)), (CD1(50),TSC1(1)), (TSC1(165),YSTRC1(1)
EQUIVALENCE (ND(1),ND(1), (ND(2),ND(2)
,(ND(3),ND(3), (ND(4),ND(4), (ND(5),ND(5)
,(ND(6),ND(6), (ND(7),ND(7), (ND(8),ND(8)
,(ND(9),ND(9), (ND(10),ND(10), (ND(11),ND(11)
,(ND(12),ND(12), (ND(20),ND(20), (ND(29),ND(29)
,(ND(30),ND(30), (ND(31),ND(31), (ND(47),ND(47)
,(ND(50),TSC1(1), (ND(50),ND(50), (ND(57),ND(57)
FORMAT(1H,30X,1E10.4) IN ARRAY ***43X,20H** DLPVT - 1P(20) **//
FORMAT(10,5E10.0)

```

CHART TITLE - INTERACTIVITY COMMENTS

*****SUBROUTINE PRTA*****

DESIGN DATA PRINT - TYPE A TORQUE-BOX SYNTHESIS SUMMARY

CHART TITLE - SUBROUTINE PRIA

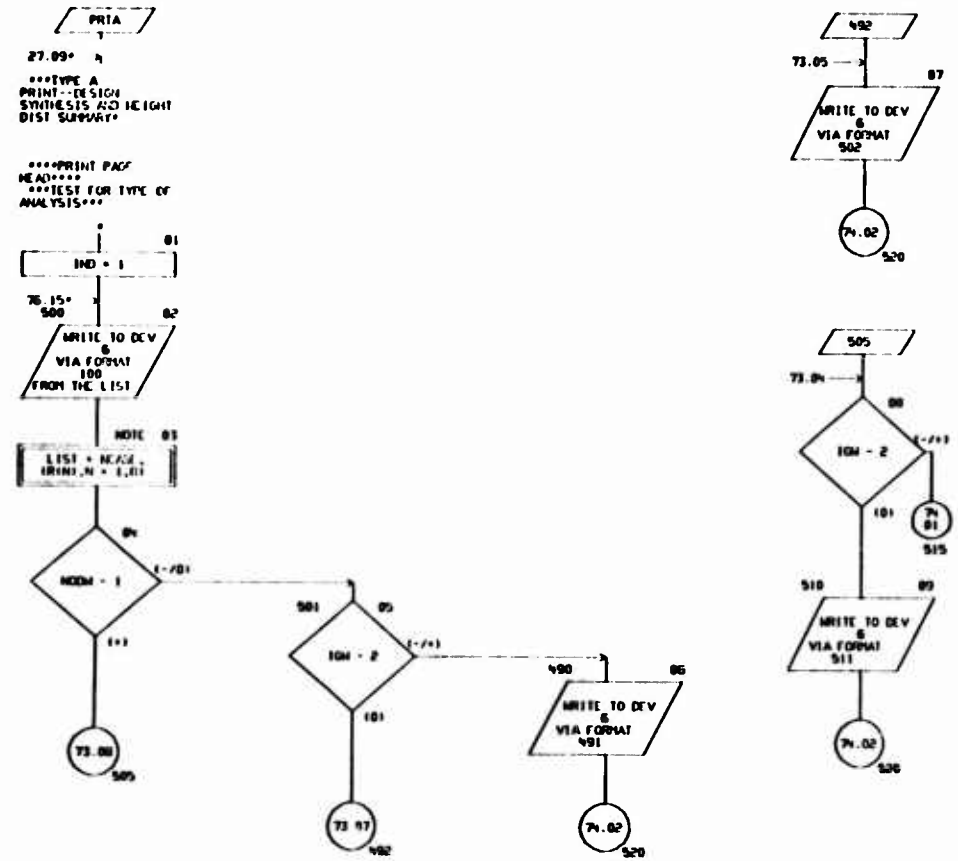


CHART TITLE - SUBROUTINE PR1A

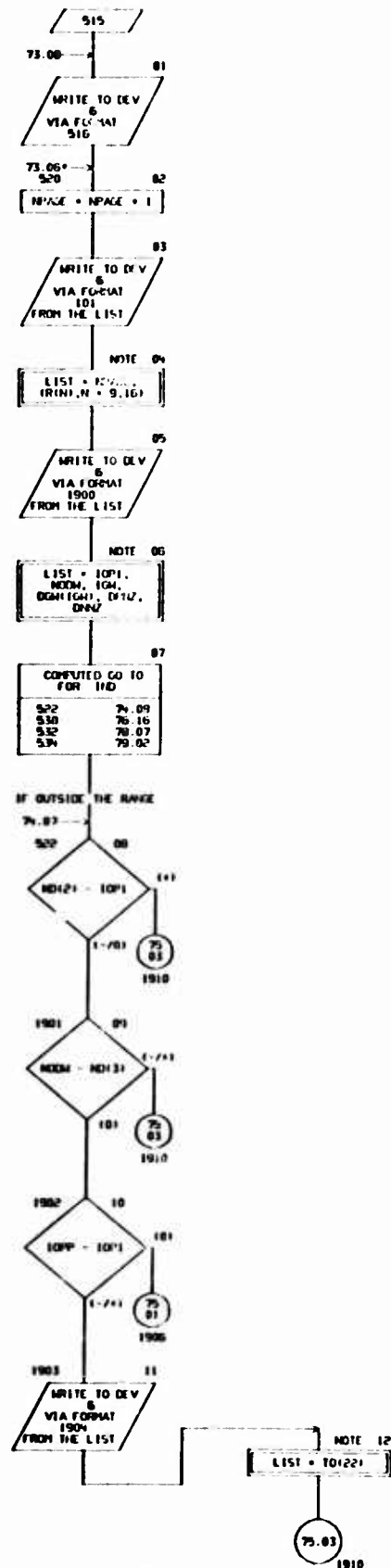


CHART TITLE - SUBROUTINE PH1A

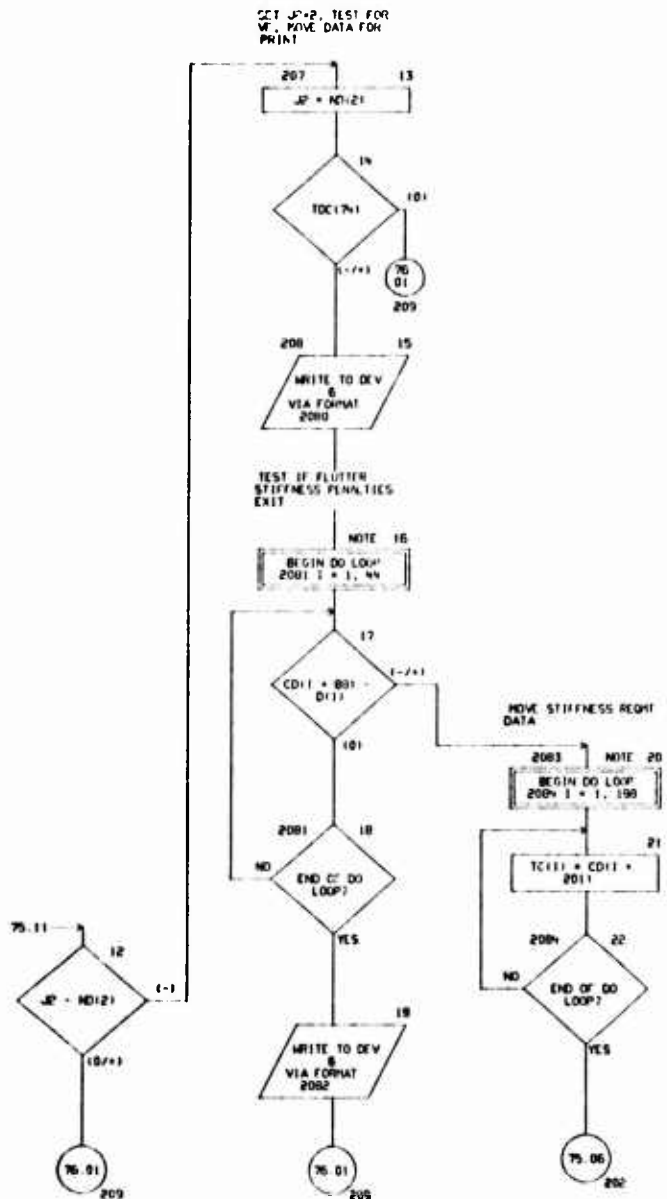
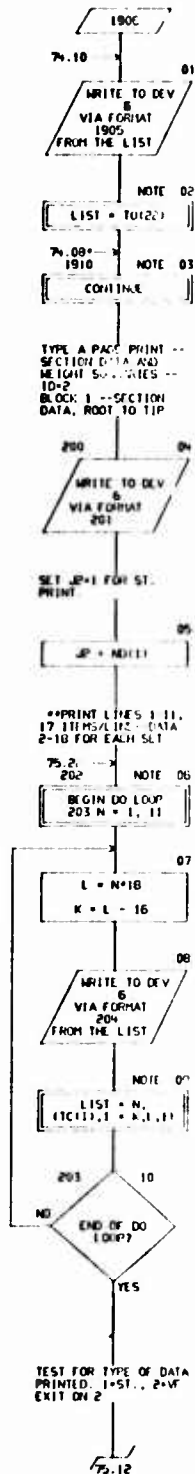


CHART TITLE - SUBROUTINE PRINT

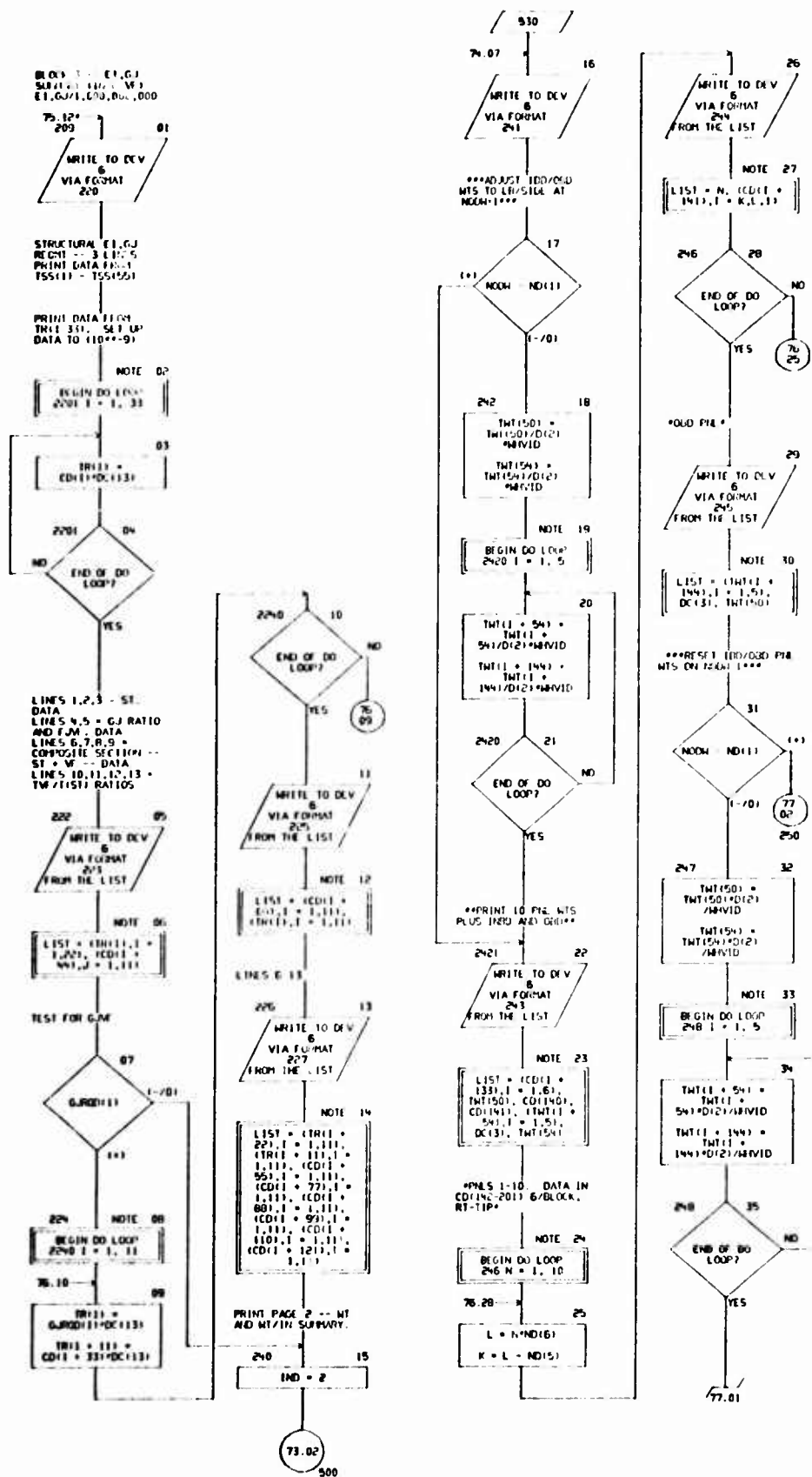
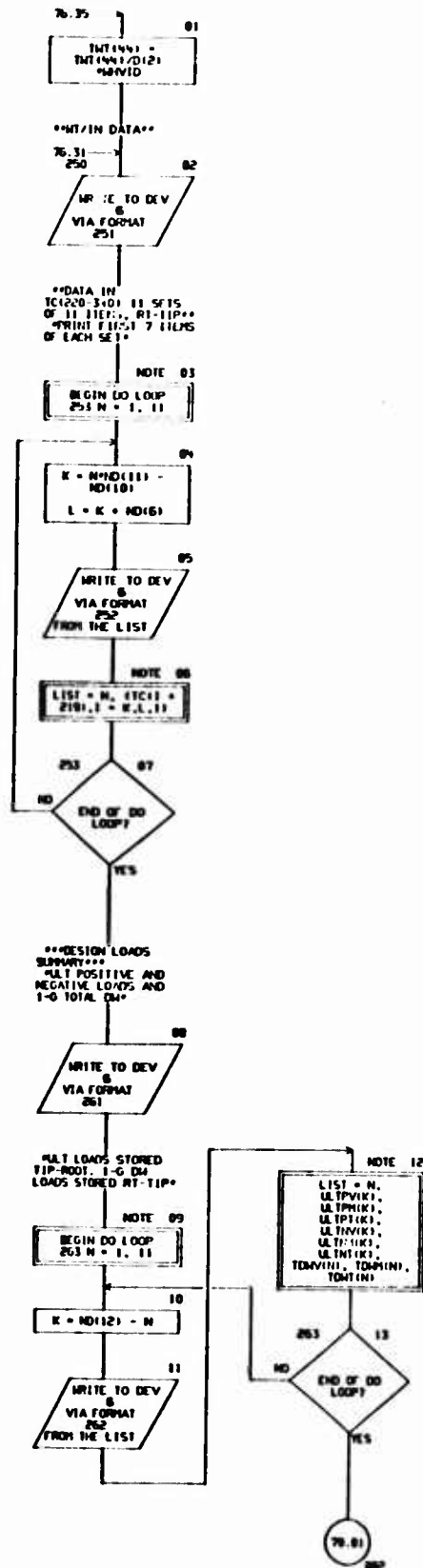


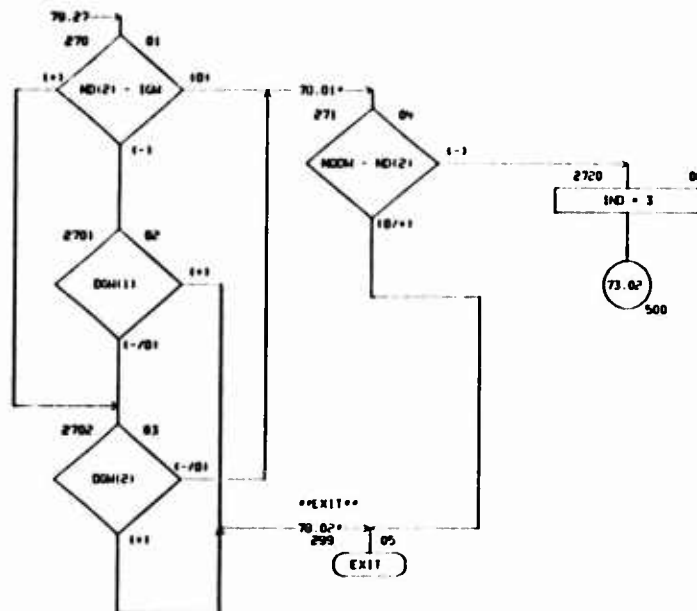
CHART TITLE - SUBROUTINE FRTA



```

****TEST FOR GM(2)
FOR GEOMETRY
PRINT****
****TEST FOR ZERO
GM(1) AND GM(2) FOR
GEOMETRY PRINT**

```



74.07 → 87
932
WRITE TO DEV
6
VIA FORMAT
273
FROM THE LIST

C151 - T5C1176),
 T5C1251,
 T5C1061,
 T5C1081,
 T5C1491, T11001,
 YD30111,
 YD0111

276 | NOIC 09
BEGIN DO LOOP
277 N = 2, 10, 1

10

[K • ND(12) - N]

11
WRITE TO DEV
6
VIA FORMAT
274
FROM THE LIST

LIST - N,
TSCIK - 1651,
TSCIK - 441,
TSCIK - 551,
TSCIK - 771,
TSCIK - 881,
TIN - 991,
YELDIKI, YELDIKI

YES

WRITE TO OLV

NOTE 15

LIST = TSEC(166),
TSEC(151),
TSEC(156),
TSEC(170),
TSEC(189), T(110),
Y(1011), Y(1011)

78.0%

CHART TITLE - SUBROUTINE FRIA

***PAGE 1 SECTION
DESIGN YIELD
DATA ***
**TOTAL WT SUPPORT
WING SET J WT
SECTION J*

77.13
244

78.02
500

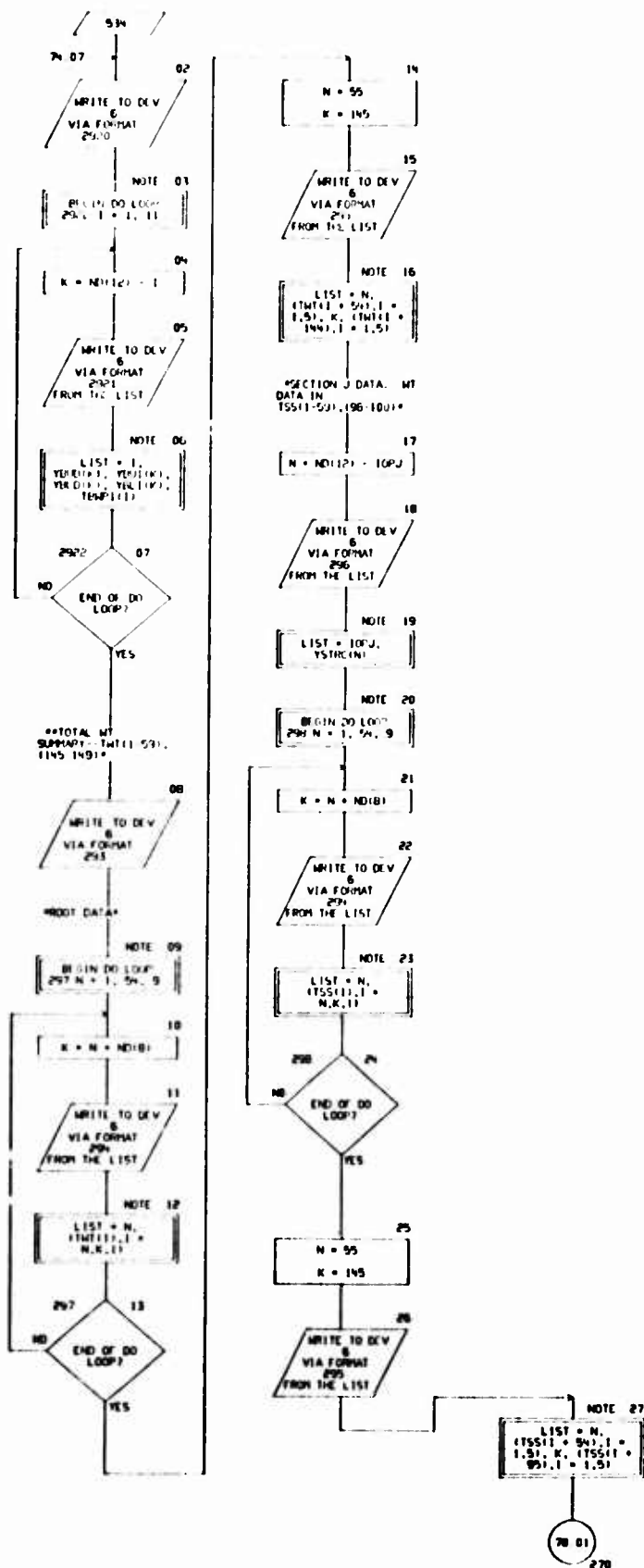


CHART TITLE - NXX PROCEDURAL STATEMENTS

```

COMMON T(2000),D(2000),CD(2000),ND(100)
COMMON /MISC/ NMISC(100)
DIMENSION DC(100),TDC(200),TSC(120),TSS(100),TMT(400),TSEC(300),
TC(240),T0(40),TR(40),
VSTR(11),TRMPT(11),GRD(11),
TGM(3),DGM(3),
TDM(11),TDM(11),TDM(11),
ULTPV(11),ULTPM(11),ULTPT(11),
ULTNV(11),ULTNM(11),ULTNT(11),
YBUI(11),YEL(11),YBUD(11),YELD(11),
RI(6)
EQUIVALENCE (DC(1),D(1401)),(TDC(1),T(1341)),(TSC(1),T(1541)),
(TSS(1),T(1961)),(TMT(1),CD(1101)),(TSEC(1),CD(1501)),
(TC(1),T(1921)),(T(1),T(1921)),(VSTR(1),TSEC(1661)),
(TGM(1),D(101)),(DGM(1),D(1021)),(DM(1),T(1201)),(DM(2),T(1211)),
(TR(1),T(1301)),(RI(1),NMISC(1051)),
(TDM(1),CD(15601)),(TDM(1),CD(19791)),(TDM(1),CD(19401)),
(ULTPV(1),TSEC(1211)),(ULTPM(1),TSEC(111)),(ULTPT(1),TSEC(1441)),
(ULTNV(1),TSEC(1111)),(ULTNM(1),TSEC(1221)),(ULTNT(1),TSEC(1551)),
(YBUI(1),TSEC(1331)),(YEL(1),TSEC(1491)),(YBUD(1),T(17451)),
(YBUD(1),T(16791)),(YELD(1),T(1691)),(Y(1),T(1691)),
EQUIVALENCE (INAGE,ND(101)),(INOW,ND(1551)),(IGM,ND(1511)),
(TOP,ND(1741)),(TOPJ,ND(1001)),(TOPJ,ND(1811)),(TOPJ,ND(1821)),
(I,ND(1271)),(I,ND(1291)),(I,ND(1301)),(I,ND(1311)),(I,ND(1201)),
(INMID,T(1571)),
(INPAGE,ND(1051))
100  FORMAT(1H, 'NHCAT', 14, 1X, BA10, 13, 13H** PRTA - 1P(1)
491  FORMAT(1H, 10X, 6H30) **
502  FORMAT(1H, 10X, 6H29) **
511  FORMAT(1H, 10X, 6H27) **
516  FORMAT(1H, 10X, 6H28) **
101  FORMAT(5H PAGE, 14, 1X, BA10)
1900  FORMAT(27X,
      5H10P1=11, 5H NOOH=11, 5H 10H=1
      1, 5H 00H=9, 1, 5H 02H=6, 3, 2H=7, 5, 3)
1904  FORMAT(1H, 12X, 4H PT=F4, 1)
1905  FORMAT(1H, 12X, 5H PT=F4, 1)
201  FORMAT(7H
      ---SECTION DATA - ST. REQMS. NK-KIP
      S, FC, FT-KSI--- /110H SECT -NRK -NRK FCU FCL FTU FT
      L TSU TSU T-U T-L TSTR LRIB BSTR NOS MSTR TWS TWS
      )
204  FORMAT(1X, 12, F7.2, F6.2, F7.2, F6.3, F6.3, F5.1, F5.2, F6.3)
2080  FORMAT(15H
      ---SECTION DATA - STIFF. REQMS. --- )
2082  FORMAT(15H
      ---NO FLUTTER STIFFNESS PENALTIES --- ,
      /B40 1)
220  FORMAT(10H
      ---SECTION E1, GJ SUMMARY (E1, GJ=1101-9
      1---/110H ITEM SECT 1 SECT 2 SECT 3 SECT 4 SECT 5
      SECT 6 SECT 7 SECT 8 SECT 9 SECT 10 SECT 11)
223  FORMAT(110H GJ-ST. 11F9.2, /10H E1-ST. 11F9.1, /10H GJ/E1-ST. 11F
      9.4)
225  FORMAT(110H GJ/GJF 11F9.4, /10H GJ-W 11F9.2)
227  FORMAT(110H GJ-COMP. 11F9.2, /10H E1-COMP. 11F9.2, /10H GJ/E1-C. 11F
      9.4, /10H GJ/GJF 11F9.4, /10H TW/TSU 11F9.4, /10H TW/TSK 11F9.4
      , /10H TW/TWS 11F9.4, /10H TW/TMS 11F9.4)
241  FORMAT(15H
      ---PANEL HEIGHT SUMMARY. LBS/SIDE---/10
      NM PANEL SUM T-BOX L.E. T.E. MISC. DEL
      TA W TIP RT-RIB C-SECT)
243  FORMAT(7H TOTAL, F12.2, F11.2, F10.2, F9.2, F10.2, F11.2, 4X, F10.2, /7
      H INED, F12.2, F11.2, F10.2, F9.2, F10.2, 15H, F10.2)
244  FORMAT(4X, 12, F12.2, F11.2, F10.2, F9.2, F10.2)
245  FORMAT(7H GMD, F12.2, F11.2, F10.2, F9.2, F10.2, F11.2)
251  FORMAT(4H
      ---HEIGHT/INCH SUMMARY---/10H SECT.
      TOTAL T-BOX L.E. T.E. MISC. DELTA W CONC.
      ITEMS )

```

CHART TITLE - NEW PROCEDURAL STATEMENTS

```

252 FORMAT (4X,12,1X,F12.4,F11.4,F10.4,F9.4,F10.4,F11.4)
261 FORMAT (42H      ---DESIGN LOADS SUMMARY--- /110H SECT.
      +MULT)  +MULT)  +MULT)  +MULT)  +MULT)  +MULT)
      T)  VDM(1-G)  MEM(1-G)  TDM(1-G) )
262 FORMAT (4X,12,F11.1,F13.1,F12.1,F11.1,F12.1,F10.1,F11.1)
273 FORMAT (40H      ---SECTION GEOMETRY SUMMARY--- /102H
      SECT.  YSTRC  WIDTH  DAVE  DVS  DRS  C-AERO
      Y-BU  Y-BL      /8H  ROOT2F10.3,F9.3,F10.3,F
      9.4)
274 FORMAT (5X,12,1X,F10.3,F9.3,F10.3,F9.4)
275 FORMAT (8H  11F2F10.3,F9.3,F10.3,F9.4,/)
2820 FORMAT      (42H      ---SECTION DESIGN Y BAR DA
      TA---/40H0 STA YDU(1) YDU(1A) YR(1) YR(1A) TB W/IN )
2871 FORMAT (14,1X,12,F9.4,F9.4)
293 FORMAT (11H0,/40H      ---ROOT SECTION HEIGHT SUMMARY --- /
      8H  TMT)
294 FORMAT (3X,12,F11.4)
295 FORMAT (2X,13,F11.4)
296 FORMAT (11H0,/40H      ---SECTION (U) HEIGHT SUMMARY --- /2
      8H  J=STA NO 13,5H,  Y=F8.2,/4H  TMT)

```

06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 02

CHART TITLE - INTRODUCTORY COMMENTS

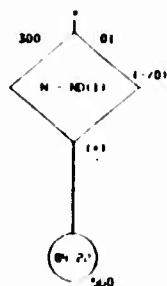
*****ROUTINE PRIN*****

DESIGN DATA PRINT - TYPE H C-SEC/PIVOT DESIGN SUMMARY

CHART TITLE - SUBROUTINE PRIN

PRIN
1
35 12* 9
01 PRN 5481 - TYPE M
**PRINT PIVOT ON
C-5481 ANALYSIS
DATA**

TEST FOR TYPE OF
PRINT TYPE
C-5481 DATA ON N-1
PIVOT DATA PRINT ON
N-2



SEC WT DATA
P5511 541
INT1311 31311

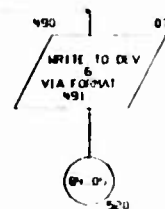
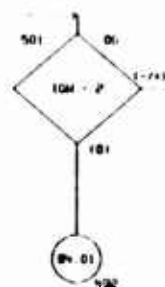
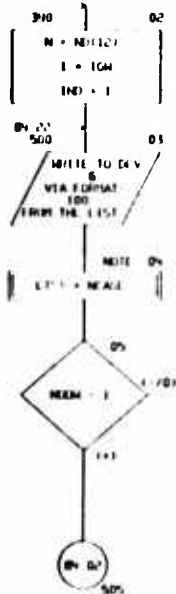


CHART TITLE - SUBROUTINE FNTH

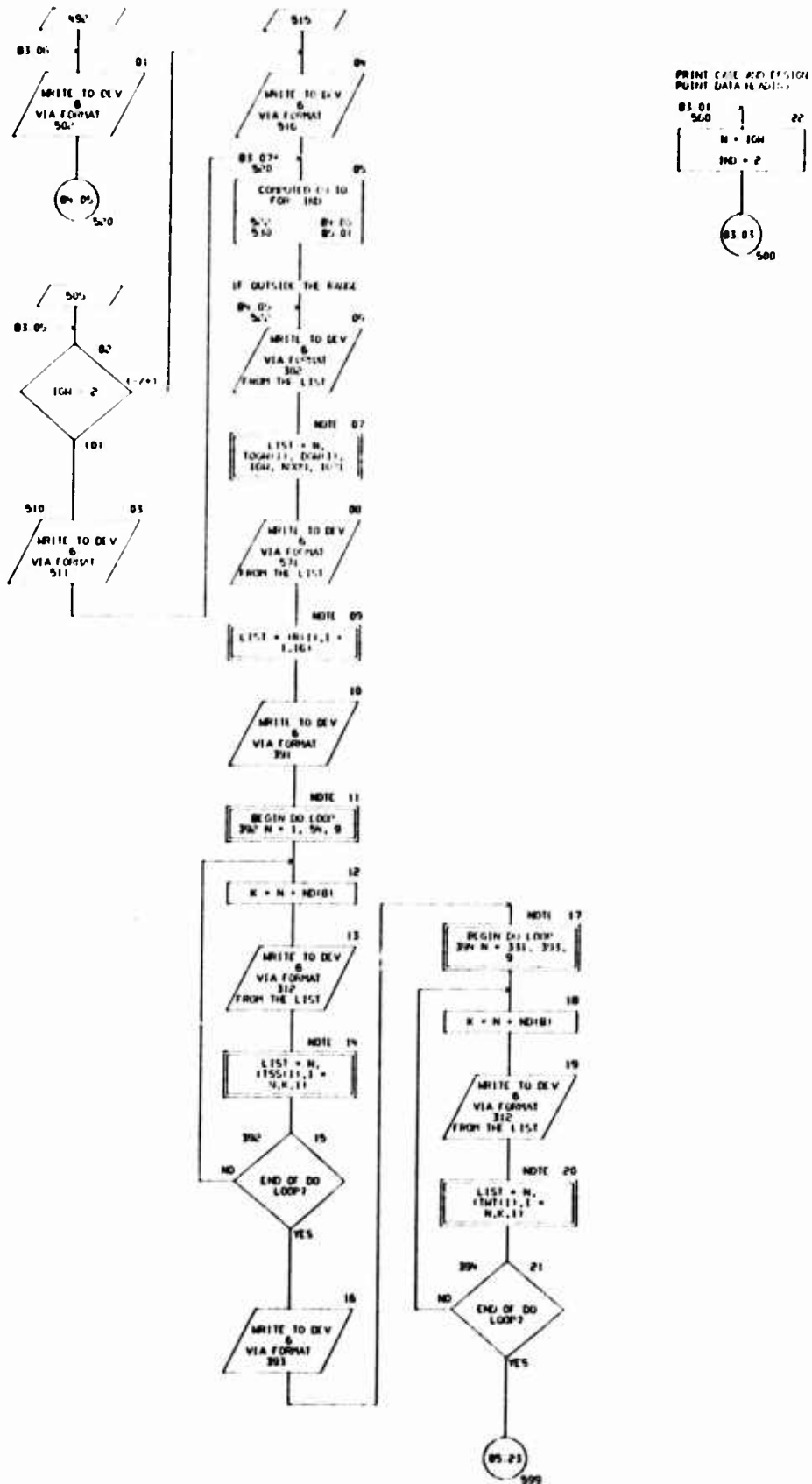


CHART TITLE - SUBROUTINE PRTH

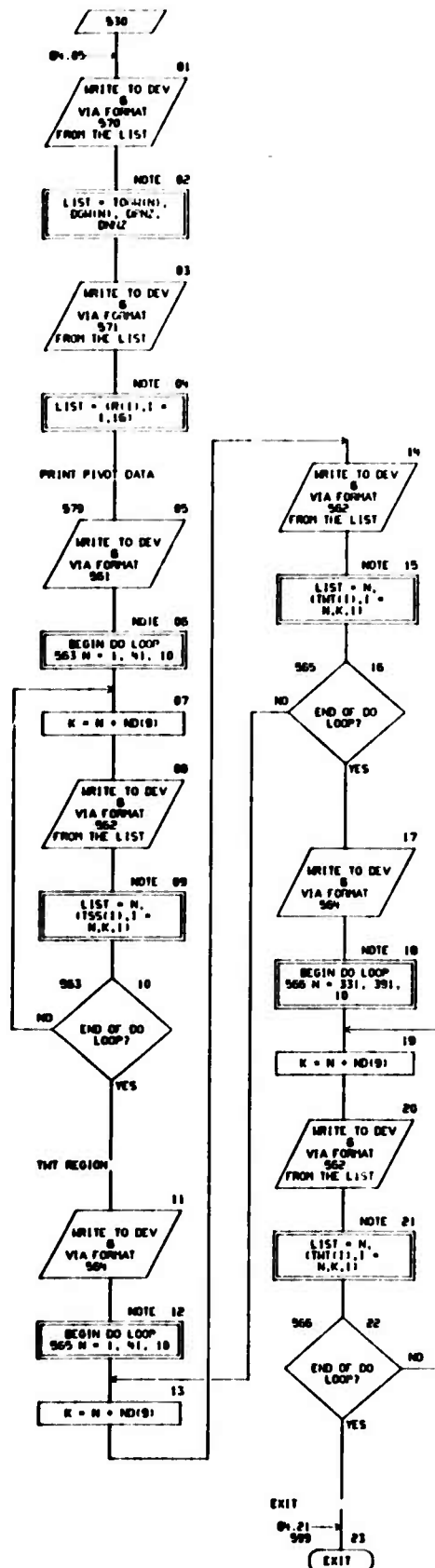


CHART TITLE - NEW PROCEDURAL STATEMENTS

```

COMMON T120001,D120001,C0120001,N010001,T120001
COMMON MISC7,MISC71001
DIMENSION T0C12001,T0C12001,T0C12001,D010001,
TMT10001,T0C13001,T0C13001,L000001,
R116,
EQUIVALENCE T0C101,T0C101,T0C101,T0C101,T0C101,T0C101,
T0C101,D010001,TMT101,C0110101,T0C101,C0110101,
T0C101,D0101,T0C101,D0101,T0C101,T0C101,T0C101,
R116,MISC10501,
T0C101,D0101,T0C101,D0101,T0C101,D0101,
T0C101,D0101,T0C101,D0101,T0C101,D0101,
100 FORMAT(1H,HEAD,14,07,13) ** FTH = 1P1
491 FORMAT(1H,10X,E100) **
502 FORMAT(1H,10X,E100) **
511 FORMAT(1H,10X,E100) **
516 FORMAT(1H,17X,E100) **
391 FORMAT(15H0) ** ** CENTER SECTION DATA - LB/AV **
/NOID TSS ** ** DETAIL HEIGHT DATA ** **
302 FORMAT(12X, 0H PANEL 12,13) DATA T0M-FB,1,6H DCH-FB,
1,6H TGM 11,7H MCH 11,7H TGM-FB,1,6H TGM-FB,1,6H
312 FORMAT(13X,13,5) 11 4)
393 FORMAT(16H0 TMT)
570 FORMAT(12X, 12H TGM-FB,1,6H DCH-FB,1,6H
M -M-FB,1,6H -M-FB,1,6H)
571 FORMAT(11H,9X,BA10,10X,BA10)
561 FORMAT(14H PIVOT AND DELTA T.B. MI SUMMARY/END TSS)
562 FORMAT(13X,13,10) 10 1)
564 FORMAT(16H0 TMT)

```

OVERLAY (10,0)

TORQUE-BOX STRUCTURAL SYNTHESIS/WEIGHT ANALYSIS
FOR METALLIC DESIGNS - NO. 2

Preceding page blank

PROGRAM TABLE OF CONTENTS AND REFERENCES,
AND TABLE OF DIAGNOSTICS

FORTRAN MODULE KING AND EMPENNAGE MODULE -

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - PROCEDURES

(000021)	2.04	10	(000019)	2.03	(000019)	2.03
(000029)	2.08	20	(000027)	2.07	(000027)	2.07

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE CNSTR

(000116)	5.01	103	(000105)	5.04				
(000040)	5.02	CNSTR	(000021)	2.04-X				
(000100)	5.02	2000						
(000104)	5.03	1000						
(000105)	5.04	100						
(000108)	5.05	101	(000105)	5.04				
(000111)	5.06	102	(000108)	5.05				
(000120)	6.01	104	(000108)	5.05				
(000124)	6.03		(000126)	6.04				
(000126)	6.04	105						
(000132)	6.08		(000134)	6.09				
(000134)	6.09	106						
(000138)	6.11	107						
(000139)	6.12		(000140)	6.13				
(000140)	6.13	1070						
(000142)	7.01	108	(000137)	6.10				
(000143)	7.02		(000144)	7.03				
(000144)	7.03	1080						
(000163)	7.04	700	(000117)	5.01	(000104)	5.03	(000105)	5.04
(000164)	7.05		(000165)	7.06			(000113)	5.06
(000165)	7.06	701					(000141)	6.13
(000174)	7.08		(000432)	11.20				
(000176)	7.10	710						
(000177)	7.11	711						
(000186)	7.13	712	(000175)	7.09	(000176)	7.10		
(000197)	7.16	720	(000192)	7.15				
(000199)	7.18	721						
(000201)	7.19	722	(000198)	7.17				
(000202)	7.20	723						
(000203)	7.21	724	(000201)	7.19				
(000204)	7.22	725						
(000205)	7.23	726	(000203)	7.21				
(000206)	7.24	727						
(000207)	7.25	728	(000205)	7.23				
(000208)	8.01	729						
(000209)	8.02	730	(000207)	7.25				
(000210)	8.03	731						
(000211)	8.04	732	(000209)	8.02				
(000212)	8.05	733						
(000214)	8.06	734	(000211)	8.04				
(000215)	8.07	735						
(000217)	8.08	736	(000214)	8.06				
(000218)	8.09	737						
(000219)	8.10	738	(000217)	8.08				
(000220)	8.11	739						
(000221)	8.12	740	(000219)	8.10				
(000222)	8.13	741						
(000225)	8.14	742	(000192)	7.15	(000221)	8.12		
(000261)	8.27	743						
(000262)	8.28	744	(000260)	8.26				
(000276)	8.31	860	(000273)	8.30				
(000277)	8.32	861						
(000278)	8.33	862	(000276)	8.31				
(000285)	8.01	870	(000273)	8.30				
(000291)	8.04	871						

06/11/74		TABLE OF CONTENTS AND REFERENCES		AUTOFLOW CHART SET - SWEEP		PAGE 2				
CARD ID	PAGE/BOX	NAME	REFERENCES	(SOURCE SEQUENCE NO. AND PAGE/BOX)						
(000232)	9.05	672	(000230)	9.03						
(000233)	9.06	673								
(000234)	9.08	674	(000232)	9.05						
(000235)	9.09	675	(000233)	8.33	(000234)	9.07				
(000236)	9.11	676	(000234)	8.33						
(000237)	9.12	678	(000237)	9.10						
(000311)	9.16	679								
(000312)	9.17	680	(000310)	9.15						
(000323)	9.20	681								
(000330)	9.23	682	(000183)	7.12						
(000334)	9.23	683								
(000335)	9.24	700	(000334)	9.23	(000343)	10.03	(000349)	10.06	(000350)	10.07
(000339)	10.01	694	(000334)	9.23						
(000344)	10.03	695								
(000345)	10.04	696								
(000348)	10.05	697								
(000349)	10.06	698								
(000350)	10.07	699								
(000356)	10.08	707								
(000357)	10.09	7170	(000353)	9.24						
(000358)	10.10	7171	(000356)	10.09						
(000361)	10.11	710	(000355)	9.24	(000349)	10.06	(000350)	10.07	(000357)	10.09
(000370)	10.13	7109								
(000372)	10.15		(000374)	10.16						
(000374)	10.16	7101								
(000377)	10.17	7102	(000379)	10.17						
(000379)	10.19		(000381)	10.20						
(000381)	10.20	7103								
(000382)	10.22	7110								
(000390)	10.23	7111								
(000391)	10.24		(000392)	10.25						
(000392)	10.25	7115								
(000401)	11.01	7112	(000401)	12.10						
(000402)	11.02		(000403)	11.03						
(000403)	11.03	7116								
(000405)	11.05		(000406)	11.06						
(000406)	11.06	7117								
(000408)	11.08		(000409)	11.09						
(000409)	11.09	7118								
(000413)	11.11		(000414)	11.12						
(000414)	11.12	7119								
(000420)	11.13	7125	(000399)	10.27						
(000422)	11.15	7121								
(000423)	11.16	7122								
(000424)	11.17	7123								
(000427)	11.18	7124	(000421)	11.14	(000422)	11.15	(000423)	11.16	(000424)	11.17
(000429)	11.19	7125	(000427)	11.10						
(000432)	11.20	7126	(000424)	11.17	(000427)	11.18				
(000435)	11.21	8000								
(000438)	11.23		(000440)	11.24						
(000440)	11.24	8001								
(000453)	12.01	7126	(000394)	10.26						
(000485)	12.11	810	(000481)	12.10						
(000486)	12.12		(000487)	12.13						
(000487)	12.13	8100								
(000491)	12.15	811								
(000496)	12.16	812	(000491)	12.15						
(000511)	13.01	813	(000501)	12.17						
(000515)	13.03		(000517)	13.04						
(000517)	13.04	8130								
(000526)	13.08		(000538)	13.11						
(000538)	13.11	8131								
(000555)	13.22	899	(000490)	12.14	(000491)	12.15	(000501)	12.17		

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SECTD

(000566) 16.01 SECTD (000323) 9.20 X (000344) 10.03 X

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1000602	16.01	7602							
1000615	16.04	7603	1000610	16.03					
1000620	16.06	7604							
1000630	16.07	7605	1000619	16.05					
1000633	16.08	9103							
1000634	16.09	9104	1000630	16.08					
1000635	16.11	9105							
1000636	16.12	9106							
1000641	16.13	7606	1000634	16.10	1000652	17.03			
1000657	16.14	7607	1000635	16.11	1000637	16.12	1000655	17.05	1000670
1000659	17.01	9110	1000636	16.07					
1000660	17.02	9111							
1000661	17.03	9112							
1000663	17.04	7607	1000639	17.01					
1000674	17.05	7608	1000640	17.02					
1000675	17.06	7609	1000641	17.03	1000643	17.04			
1000679	17.07	7610	1000643	17.04	1000674	17.05	1000677	18.04	
1000682	17.08	7613							
1000685	17.09	7612	1000644	16.13	1000682	17.03	1000687	18.02	
1000686	18.01	7613	1000645	16.13					
1000670	18.03	7615	1000646	18.02					
1000677	18.04	7616	1000647	17.05					
1000680	18.05	7617	1000648	17.03	1000677	18.04			
1000683	18.06	7618	1000649	18.05					
1000689	18.07	7619	1000650	18.05					
1000692	18.09	7621							
1000693	18.10	7622	1000651	16.10	1000670	18.03	1000675	18.05	1000691
1000694	18.11	7623	1000652	16.14	1000675	17.03	1000670	18.03	
1000710	19.01	7624							
1000715	19.04	7625							
1000718	19.05	7626	1000701	18.15	1000714	19.03			
1000722	19.07	7627							
1000726	19.08	7628	1000703	18.15	1000711	19.06			
1000730	19.09	7629							
1000734	19.11	7630							
1000738	19.13	7631	1000730	19.20					
1000739	19.14	7632	1000740	19.15					
1000740	19.15	7633							
1000744	19.17	7634							
1000749	19.19	7635	1000746	19.18					
1000751	19.21	7636							
1000754	19.23	7637	1000751	19.21					
1000755	19.24	7638	1000756	19.24					
1000756	19.24	7639							
1000760	19.25	7640	1000743	19.16	1000746	19.18	1000750	19.20	1000751
1000761	19.26	7641	1000762	19.27					
1000762	19.27	7642							
1000770	19.31	7643							
1000773	20.01	7644	1000769	19.30					
1000776	20.03	7645							
1000777	20.04	7646							
1000779	20.05	7647	1000776	20.03					
1000780	20.07	7648	1000775	20.02	1000770	20.05			
1000801	20.11	7649							
1000819	20.12	7610	1000801	20.11					
1000804	20.15	761	1000801	20.11					
1000826	21.01	763	1000823	20.14					
1000827	21.02	7630							
1000831	21.03	764	1000823	20.14	1000826	21.01			
1000835	21.05	7640							
1000839	21.07	7641	1000835	21.05					
1000846	21.10	7642							
1000847	21.11	7643	1000807	22.12					
1000852	21.12	7644	1000845	21.09					
1000856	21.15	7657							
1000857	21.16	7658	1000855	21.14					
1000858	21.18	765	1000862	21.17					
1000874	22.01	7650	1000822	23.01					
1000877	22.02	7651	1000872	21.19					
1000883	22.03	7645	1000862	21.17					
1000885	22.04	7646	1000883	22.03					
1000890	22.05	7647	1000886	22.04					

(000906)	22.12	7659			
(000910)	22.13	7648	(000883)	22.03	(000905) 22.11
(000916)	22.14	7649	(000896)	22.04	
(000918)	22.16	7660			
(000921)	23.01	7661	(000917)	22.15	
(000928)	23.02	7121	(000823)	20.14	
(000931)	23.04	7122			
(000932)	23.05	7123	(000930)	23.03	
(000942)	23.09	740			
(000944)	23.10	741	(000941)	23.08	
(000946)	23.12	742			
(000947)	23.13	743	(000945)	23.11	
(000952)	23.16	744			
(000957)	23.17	745	(000951)	23.15	
(000959)	23.20	746			
(000968)	23.21	747	(000963)	23.19	
(000972)	23.22	7470			
(000974)	23.24	7471			
(000975)	23.25	7472	(000973)	23.23	
(000981)	23.28	762	(000813)	20.17	(000919) 22.16
(000991)	24.02	750	(000072)	22.02	
(000998)	24.03	7500			
(001004)	24.06		(001005)	24.07	
(001005)	24.07	753			
(001013)	24.10	7530			
(001016)	24.11	7531	(001012)	24.09	
(001020)	24.14		(001021)	24.15	
(001021)	24.15	754			
(001029)	24.18	7540			
(001033)	24.19	730	(001028)	24.17	
(001034)	24.20		(001037)	24.21	
(001037)	24.21	731			
(001052)	25.01	400	(000610)	16.03	
(001100)	25.02	721	(001052)	25.01	
(001101)	25.03		(001102)	25.04	
(001102)	25.04	7220			
(001106)	25.05	722	(001097)	26.14	
(001095)	25.07	715	(001052)	25.01	
(001063)	25.09	7150	(001060)	25.08	
(001067)	26.01	717	(001060)	25.08	
(001070)	26.02	7170	(001064)	25.09	
(001075)	26.04	719	(001069)	26.12	
(001076)	26.05		(001077)	26.06	
(001077)	26.06	7190			
(001082)	26.08	7180	(001080)	26.07	
(001084)	26.10	718			
(001088)	26.12	7181			
(001092)	26.13	720	(001080)	26.07	(001083) 26.09 (001087) 26.11
(001111)	26.15	724	(001107)	25.06	
(001112)	26.16	7240			
(001113)	26.17	725	(001111)	26.15	
(001123)	26.19	727	(001107)	25.06	
(001131)	26.21	799	(001043)	24.23	

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE SFSCN(BSTR)

(001142)	29.01	SFSCN	(000735)	19.12-X	(000749)	19.19-X	(001072)	26.03-X	(001084)	26.10-X
(001172)	29.01	3001								
(001186)	29.05	3002	(001184)	29.04						
(001187)	29.06	3003								
(001188)	29.07	3006	(001184)	29.04						
(001189)	29.08	3007	(001187)	29.06						
(001191)	29.09	3008	(001186)	29.05						
(001193)	29.10	3009	(001184)	29.04						
(001207)	29.15	3010								
(001208)	29.16	3004								
(001209)	29.17	3005								

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(001213)	29 10	300	(001207)	29 15	(001200)	29 16		
(001216)	29 19	301	(001213)	29 10				
(001221)	30 01	302	(001213)	29 10				
(001223)	30 03	420						
(001225)	30 04	303	(001218)	29 19	(001222)	30 02		
(001229)	30 06	422						
(001238)	30 07	423	(001228)	30 05				
(001241)	30 09	4230						
(001243)	30 11	4231						
(001244)	30 12	4232	(001242)	30 10				
(001246)	30 14	4233						
(001248)	30 16	4234						
(001249)	30 17	4235	(001247)	30 15				
(001251)	30 18	4236	(001248)	30 16				
(001252)	30 19	4239	(001240)	30 03	(001245)	30 13	(001250)	30 17
(001256)	30 21	4240						
(001265)	30 26	424						
(001268)	30 27	425	(001264)	30 25				
(001315)	30 28	480	(001255)	30 20				
(001321)	30 29	490	(001260)	30 27				
(001323)	30 30	4300						
(001324)	30 31	491						
(001271)	31 01	4250	(001268)	30 27				
(001279)	31 05	4251						
(001280)	31 06	426						
(001283)	31 07	427	(001279)	31 05				
(001285)	31 08	4270						
(001287)	31 09	431	(001285)	31 08	(001310)	31 24		
(001292)	31 10	306	(001285)	31 08				
(001296)	31 13	304	(001294)	31 12				
(001297)	31 14		(001298)	31 16				
(001298)	31 15	432						
(001300)	31 18	433	(001346)	32 08	(001348)	32 10		
(001302)	31 19	309	(001300)	31 18	(001348)	32 10	(001399)	33 14
			(001425)	36 09	(001469)	37 02	(001704)	44 11
(001303)	31 20	330	(001308)	34 03	(001473)	38 01		
(001304)	31 21		(001305)	31 23				
(001305)	31 22	310						
(001308)	31 24	305	(001294)	31 12				
(001327)	31 25	432	(001317)	30 28	(001323)	30 30		
(001331)	31 26	493	(001323)	30 30	(001346)	30 31		
(001336)	32 01	307	(001294)	31 12				
(001337)	32 02	308						
(001337)	32 02		(001337)	32 03				
(001347)	32 09	311						
(001364)	33 01	3141	(001362)	33 12				
(001350)	33 03	312	(001348)	32 10				
(001355)	33 04	320	(001401)	33 15				
(001358)	33 07	313						
(001360)	33 09		(001361)	33 11				
(001361)	33 10	314						
(001363)	33 13	3140						
(001399)	33 14	318	(001357)	33 06				
(001400)	33 15	319						
(001406)	33 16	324	(001365)	33 02	(001363)	33 13	(001403)	35 16
(001410)	33 17	324	(001501)	40 01				
(001470)	33 20	343	(001412)	33 19	(001418)	36 03	(001468)	37 01
(001367)	34 01	315	(001365)	33 02	(001397)	35 21		
(001387)	34 03	329	(001368)	34 02	(001395)	35 19	(001435)	36 15
			(001701)	43 10			(001451)	36 25
(001456)	35 01	340	(001382)	35 14			(001469)	37 02
(001459)	35 03	411						
(001372)	35 04	323	(001368)	34 02	(001405)	35 17		
(001375)	35 07	316						
(001377)	35 09		(001378)	35 11				
(001378)	35 10	3161						
(001380)	35 12	326	(001423)	36 08	(001448)	36 23	(001515)	40 07
(001382)	35 14	3262					(001516)	40 08
(001403)	35 15	321	(001374)	35 06				
(001404)	35 17	322						
(001384)	35 18	327	(001382)	35 14				
(001385)	35 19	328						
(001389)	35 20	317	(001384)	35 18				

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1001666	43.02	3.1	1001666	43.02	
1001667	43.03	3.2	1001667	43.02	
1001668	43.04	3.3			
1001669	43.05	3.4	1001669	43.05	1001671 45.03
1001700	43.06	3.5			
1001701	43.07	3.6	1001701	43.07	1001703 44.10 1001717 45.07
1001668	44.01	3.7	1001668	43.02	
1001675	44.05	3.8			
1001677	44.06	3.9	1001677	43.07	
1001678	44.07	3.10	1001678	44.07	
1001679	44.08	3.11			
1001703	44.10	3.12	1001703	44.06	1001677 45.03
1001704	44.11	3.13			
1001679	45.01	3.14	1001679	42.14	1001670 44.09
1001711	45.04	3.15	1001677	45.03	
1001719	45.08	3.16	1001717	45.07	
1001720	45.09	3.17			
1001706	45.10	3.18	1001700	43.09	1001701 43.10 1001703 44.11 1001719 45.08 1001720 45.09
1001707	45.11	3.19			
1001707	45.12	3.20	1001707	45.12	

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CHART TITLE - INTERVIEW COMMENTS

CHART TITLE - SUMMARY LIST

1001743	48.01	801	1000901	42.03	X	1001740	30.23	X	1001275	31.03	X
1001747	48.01	802									
1001773	48.03	803	1001770	40.04							
1001777	48.04	804	1001770	40.04							
1001781	49.01	805	1001770	40.04							
1001785	49.02	806	1001781	49.01							
1001789	49.04	807	1001780	48.05							
1001792	49.05	808	1001789	49.04							
1001795	49.07	809	1001793	49.06							
1001800	50.01	810	1001793	49.06	1001805	51.02					
1001804	51.01	811	1001793	49.06	1001805	51.02					
1001805	51.03	812									
1001807	51.14	813									
1001809	51.15	814	1001807	51.13	1001817	51.19					
1001814	51.18	815	1001811	51.17							
1001815	51.19	816	1001811	52.02							
1001816	51.20	817	1001814	51.18	1001813	52.02					
1001817	51.23	818									
1001818	51.24	819									
1001837	52.01	820	1001814	51.18	1001813	52.02					
1001841	52.02	821	1001811	51.17							
1001859	52.03	822	1001770	40.05	1001781	49.01					
1001861	52.04	823									
1001868	52.07	824	1001805	52.06							
1001871	52.10	825	1001806	52.13							
1001874	52.13	826									
1001892	52.14	827	1001873	52.12	1001802	53.03					
1001896	52.17	828	1001907	54.04	1001914	54.08	1001950	56.05			
1001898	52.18	829	1001895	52.16							
1001899	53.01	830	1001895	52.06	1001895	53.05					
1001903	53.04	831									
1001906	53.06	832	1001895	52.06	1001870	52.09					
1001908	53.07	833	1001873	52.12	1001802	53.03					
1001911	54.01	834	1001895	52.16							
1001913	54.02	835	1001900	52.10							
1001918	54.05	836									
1001915	54.09	837									
1001918	54.12	838									
1001921	54.13	839	1001918	54.12							
1001923	54.14	840	1001950	56.01							
1001929	55.01	841	1001918	54.12							
1001930	55.02	842	1001941	55.09							
1001932	55.03	843	1001951	54.14							
1001936	55.05	844									

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(001939)	55.06	731	(001935)	55.04		
(001941)	55.08	732				
(001944)	55.09	74	(001941)	55.08		
(001945)	55.10	75				
(001950)	56.01	82	(001941)	55.08		
(001951)	56.02	83				
(001955)	56.03	78	(001947)	55.10		
(001959)	56.06	780				
(001964)	56.08	53	(001797) (001937)	49.07 55.05	(001894) (001897)	51.24 52.17
					(001887)	53.06
					(001889)	53.07
(001965)	56.09	54	(001846) (001940)	51.13 55.07	(001850) (001840)	51.27 52.01
				(001944)	55.09	(001917)
					(001950)	56.01
(001968)	56.11	99	(001852)	50.01	(001917)	54.11
					(001918)	54.12
(001971)	56.12	531	(001789)	49.04	(001968)	56.11
(001976)	56.13	549	(001968)	56.11		

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CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE BOTC(S/C1,RD11)

(001986)	59.01	BOTC	(001862)	52.05-X	(001879)	52.00-X	(001877)	52.11-X	(001874)	52.15-X	(001871)	53.02-X
			(001906)	54.03-X	(001915)	54.09-X	(001933)	55.06-X	(001927)	56.04-X		
(002004)	59.01	100										
(002011)	59.04	110	(002000)	59.03	(002032)	60.01						
(002015)	59.05	111										
(002018)	59.06	120	(002015)	59.05								
(002021)	59.07	129	(002015)	59.05	(002035)	60.02						
(002025)	59.09	1290										
(002026)	59.10	1291	(002024)	59.08								
(002027)	59.11	1298	(002024)	59.08	(002025)	59.09						
(002029)	59.12	1297	(002025)	59.09	(002026)	59.10						
(002032)	60.01	130	(002008)	59.03								
(002033)	60.02	131										
(002039)	60.03	194	(002029)	59.12								

CHART TITLE - NON-PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE TSCN(S/C1)

(002050)	63.01	TSCN	(001293)	31.11-X	(001332)	31.27-X	(001345)	32.07-X	(001356)	33.05-X	(001373)	35.05-X
			(001417)	36.02-X	(001442)	36.17-X	(001454)	37.04-X	(001483)	39.04-X	(001496)	39.18-X
			(001508)	39.22-X	(001505)	39.34-X	(001442)	41.09-X	(001502)	41.20-X	(001612)	42.04-X
			(001607)	43.05-X	(001673)	44.03-X	(001716)	45.06-X				
(002090)	63.01	88										
(002100)	63.04	99										
(002113)	63.09	5001										
(002118)	63.11	5002										
(002119)	63.12	5003										
(002122)	63.13	5004	(002117)	63.10								
(002127)	63.15	5005										
(002129)	63.16	5006	(002121)	63.12	(002124)	63.14						
(002136)	63.19	5007	(002134)	63.18								
(002138)	63.21	5008										
(002140)	63.22	5009	(002134)	63.18	(002137)	63.20						
(002142)	63.24	5011										
(002147)	63.25	5019	(002118)	63.11	(002134)	63.18	(002141)	63.23				
(002152)	63.26	5029										
(002155)	64.01	5000	(002152)	63.26								
(002158)	64.02	500	(002155)	64.01	(002255)	66.18	(002279)	67.09				
(002161)	64.04	1500										
(002163)	64.06	5101										
(002164)	64.07	1501	(002160)	64.03	(002162)	64.05						
(002168)	64.08	501	(002155)	64.01	(002215)	65.12						
(002174)	64.11	648										
(002175)	64.12	645	(002173)	64.10								
(002178)	64.14	650										
(002184)	64.15	655	(002211)	65.11								
(002223)	64.16	5010	(002178)	64.13								
(002185)	65.01	651	(002184)	64.15								
(002188)	65.02	652	(002184)	64.15								

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(002198)	65 06	1652										
(002200)	65 08	5103										
(002201)	65 09	1653	(002197)	65 05	(002199)	65 07						
(002207)	65 10	653	(002152)	63 26								
(002209)	65 11	654	(002207)	65 10								
(002214)	65 12	656	(002207)	65 10								
(002225)	65 13	701	(002223)	64 16								
(002232)	65 16	702										
(002234)	66 01	703	(002231)	65 15								
(002236)	66 02	707	(002630)	68 21								
(002239)	66 04		(002242)	66 05								
(002242)	66 05	704										
(002243)	66 06	700	(002223)	64 16	(002233)	65 16						
(002245)	66 08	1502										
(002247)	66 10	5105										
(002248)	66 11	1503	(002244)	66 07	(002246)	66 09						
(002251)	66 13	711										
(002631)	66 14	5331	(002250)	66 12	(002242)	68 17	(002625)	68 18	(002627)	68 20		
(002641)	66 16	5999										
(002254)	66 17	503	(002251)	66 13								
(002258)	66 19	601	(002255)	66 18								
(002267)	67 01	600	(002251)	66 13								
(002271)	67 02	504	(002251)	66 13								
(002272)	67 03	505										
(002274)	67 05	506										
(002275)	67 06	507	(002273)	67 04								
(002276)	67 07	508										
(002277)	67 08	509	(002275)	67 06								
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10025021	73.19	54.7	10024001 71.08 10024062 71.27 10024030 72.18 10024741 72.27
10025041	73.21	54.70	10024001 71.08 10024062 71.27 10024030 72.18 10024741 72.27
10025111	74.01	55.9	10024001 71.08 10024062 71.27 10024030 72.18 10024741 72.27
10025141	74.03	54.9	10024001 71.08 10024062 71.27 10024030 72.18 10024741 72.27
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(002903)	08.01	303	(002876)	07.12		
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(002916)	08.04	000				
(002920)	08.07	01	(002910)	08.05		
(002922)	08.07	02	(002920)	08.06		
(002925)	08.08	03	(002920)	08.06	(002923)	08.00
(002929)	09.01	04	(002920)	08.06		
(002931)	09.02	05	(002927)	08.10	(002929)	09.01
(002934)	09.03	06	(002927)	08.10		
(003071)	00.01	100	(002942)	00.05	(002949)	00.07
(002937)	00.04	07	(002923)	08.00	(002929)	09.01
(002942)	00.05	00	(002910)	08.05		
(002945)	00.06	01	(002942)	00.05		
(002949)	00.07	02	(002942)	00.05	(002945)	00.06
(002953)	01.01	03	(002949)	00.07		
(002956)	01.02	04	(002953)	01.01		
(002960)	01.03	05	(002956)	01.02		
(002963)	01.06	06	(002965)	01.05	(003031)	04.05
(002974)	01.08	07	(002963)	02.09		
(002975)	01.09	070	(003002)	02.14		
(003160)	02.01	009	(003159)	02.05	(003161)	02.07
(003160)	02.02	53			(003156)	00.10
(003173)	02.04	0000	(003160)	02.01		
(003150)	02.05	02	(002999)	00.03	(002903)	07.04
			(002939)	00.04	(002975)	01.05
			(003031)	04.05	(003006)	04.09
			(003002)	02.14	(003056)	05.09
					(003103)	07.02
(003160)	02.06	04			(002911)	00.02
(003162)	02.08	040			(002976)	01.09
(002980)	02.09	00			(002933)	02.12
(002980)	02.10	110	(002905)	01.05	(003006)	04.09
(002980)	02.13	112	(002956)	01.02		
(003005)	03.01	120	(002933)	02.12	(003012)	03.05
(003007)	03.02	121	(002953)	01.01	(003029)	00.02
(003000)	03.03	122	(003005)	03.01		
(003016)	03.06	123	(003043)	05.03		
(003024)	04.01	124	(003012)	03.05		
(003026)	04.02	125	(003005)	03.01		
(003001)	04.06	141	(003024)	04.01		
(003030)	05.01	127	(003031)	04.05	(003050)	00.02
(003045)	05.04	120	(003024)	04.01		
(003050)	05.07	120	(003043)	05.03		
(003055)	05.09	1230	(003005)	04.09	(003045)	05.06
(003050)	06.01	140	(003020)	03.07		
(003070)	06.03	101	(003043)	05.03		
(003001)	06.05	102	(003070)	06.04	(003112)	07.00
(003000)	06.07	103	(003070)	06.04		
(003009)	06.09	104	(003004)	06.06		
(003001)	06.10	105	(003000)	06.00		
(003004)	07.01	106	(003070)	06.04	(003112)	07.00
(003000)	07.02	107	(002945)	00.06		
(003100)	07.03	130	(002945)	00.06		
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(003132)	08.04	011				
(003135)	08.06	012				
(003136)	08.07	013	(003131)	00.03	(003134)	00.05
(003130)	08.08	014				
(003143)	08.10	02	(003137)	00.00		
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(003212)	101.05	613				
(003235)	101.00	622	(003210)	101.07	(003232)	102.04
(003220)	102.01	620	(003207)	101.02		
(003229)	102.03	621	(003203)	101.03		
(003239)	102.05	623	(003232)	102.04		
(003240)	102.06	624				
(003241)	102.07	625	(003239)	102.05		
(003242)	102.08	626				
(003243)	102.09	627	(003241)	102.07		
(003247)	102.10	630	(003232)	102.04		
(003249)	102.12	631				
(003250)	102.13	632	(003240)	102.11		
(003251)	102.14	633				
(003252)	102.15	634	(003250)	102.13		
(003253)	102.16	635	(003251)	102.14		
(003256)	102.17	638	(003251)	102.14		
(003259)	102.18	640	(003210)	101.07	(003244)	102.09
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(003262)	102.21	642	(003260)	102.19		
(003265)	102.22	602	(003236)	101.00	(003226)	102.02
(003270)	102.23	009				

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(003321)	105.02	0004	(003307)	105.09		
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(003301)	105.00	0000				
(003305)	105.00	0001				
(003334)	105.10	00	(003304)	105.07		
(003310)	105.12	0002	(003307)	105.09		
(003340)	105.13	000	(003337)	105.11		
(003343)	106.01	001	(003337)	105.11	(003340)	105.13
(003344)	106.02	002	(003337)	105.11		
(003345)	106.03	003	(003340)	105.13		
(003354)	106.06		(003356)	106.07		
(003358)	106.07	01				
(003361)	106.08	02	(003331)	105.05		
(003370)	106.12	021	(003367)	106.11		
(003377)	107.01	020	(003367)	106.11		
(003301)	107.02	03	(003374)	106.13		
(003302)	107.03		(003305)	107.05		
(003305)	107.05	04				
(003308)	107.06	05				
(003308)	107.07	050				
(003300)	107.00	051	(003396)	107.07		
(003403)	107.00	052	(003300)	107.07		
(003400)	107.10	053	(003400)	107.00		
(003413)	107.12	060	(003400)	107.11		
(003417)	107.13	061	(003409)	107.11		
(003419)	107.14	062	(003313)	105.12		
(003422)	107.15	06	(003400)	107.11		
(003426)	107.16	09				

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(003463)	110.03	1100					
(003464)	110.04	1101	(003462)	110.02			
(003477)	110.10	1102					
(003480)	110.11	1103	(003477)	110.10			
(003483)	110.12	110	(003480)	110.11			
(003487)	111.01	113	(003486)	110.13			
(003492)	111.02	114	(003487)	111.01			
(003496)	111.04		(003505)	111.03			
(003502)	111.07	115					
(003503)	111.08	1141					
(003505)	111.09	1140					
(003506)	111.10	116	(003501)	111.06	(003502)	111.07	(003510)
(003510)	111.11	117	(003501)	111.06			(003510)
(003511)	111.12	1170					
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(003643)	116.14	193								
(003645)	116.15	192	(003642)	116.13						
(003648)	116.16	194	(003642)	116.13	(003644)	116.14				

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CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PR10

1005576)	175.01	PRIC	(1005429)	11.19	X	
1005607)	175.01	300				
1005611)	175.02	301				
1005619)	175.06	501				
1005622)	175.07	505	(1005618)	175.05		
1005628)	175.08	510	(1005611)	175.06		
1005634)	175.10	310				
1005639)	175.12		(1005641)	175.15		
1005641)	175.15	313				
1005643)	175.17		(1005645)	175.20		
1005645)	175.20	314				
1005649)	175.25		(1005651)	175.28		
1005651)	175.28	315				
1005655)	175.3	320				
1005659)	176.01		(1005661)	176.04		
1005661)	176.04	322				
1005665)	176.05	330				
1005670)	176.07		(1005672)	176.10		
1005672)	176.10	333				
1005682)	176.13	340	(1005676)	176.12		
1005683)	176.14	341				
1005688)	176.16		(1005690)	176.19		
1005690)	176.19	345				
1005694)	176.22		(1005696)	176.25		
1005696)	176.25	348				
1005701)	176.26	359	(1005676)	176.12	(1005682)	176.13

CHART TITLE - NON PROCEDURAL STATEMENTS

CHART TITLE - INTRODUCTORY COMMENTS

CHART TITLE - SUBROUTINE PRIOR

1005711)	179.01	PRIOR	(1002163)	64.06	X	(1002200)	65.08	X	(1002477)	66.10	X	(1002552)	65.04	X	(1002805)	65.09	X
			(1003170)	92.03	X												
1005733)	179.04	104	(1005731)	179.03													
1005734)	179.05		(1005736)	179.07													
1005735)	179.07	106															
1005740)	179.08	110	(1005735)	179.06													
1005742)	179.09	111	(1005740)	179.08	(1005762)	180.03											
1005750)	180.01	125	(1005740)	179.08													
1005765)	180.04	120	(1005762)	180.03													
1005770)	180.07	130	(1005766)	179.13	(1005762)	180.03											
1005786)	180.12	133	(1005764)	180.11													
1005789)	180.14		(1005791)	180.17													
1005791)	180.17	139															
1005794)	180.18	140															
1005795)	180.19	141															
1005798)	180.21		(1005800)	180.24													
1005800)	180.24	149															
1005803)	180.25	159	(1005731)	179.03	(1005737)	179.07	(1005794)	180.11	(1005794)	180.18							

CHART TITLE - NON PROCEDURAL STATEMENTS

06/11/76

TABLE OF DIAGNOSTICS

AUTOFLOW COUNT SET - SHEEP

PAGE 1

CARD ID	LOCATION	DIAGNOSTIC
(000017)	2 02	UNRECOGNIZED SIGNAL
(000025)	2 06	UNRECOGNIZED SIGNAL
(000042)	13 13	UNDEFINED - WITHIN EXTERNAL REFERENCE
(000044)	13 15	UNDEFINED - WITHIN EXTERNAL REFERENCE
(000046)	13 17	UNDEFINED - WITHIN EXTERNAL REFERENCE
(000048)	13 19	UNDEFINED - WITHIN EXTERNAL REFERENCE
(000050)	13 21	UNDEFINED - WITHIN EXTERNAL REFERENCE

PROGRAM FLOW CHARTS

05/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMERGENCY MODULE - PAGE 01

CHART TITLE - INTRODUCTORY COMMENTS

****PROGRAM OLAYIB****

PROGRAM FOR FIFTH OVERLAY OF WING/EMERGENCY MODULE

STRUCTURAL SYNTHESIS/WEIGHT ANALYSIS - METALLIC DESIGN NO 2

CHART TITLE - PROCEDURES

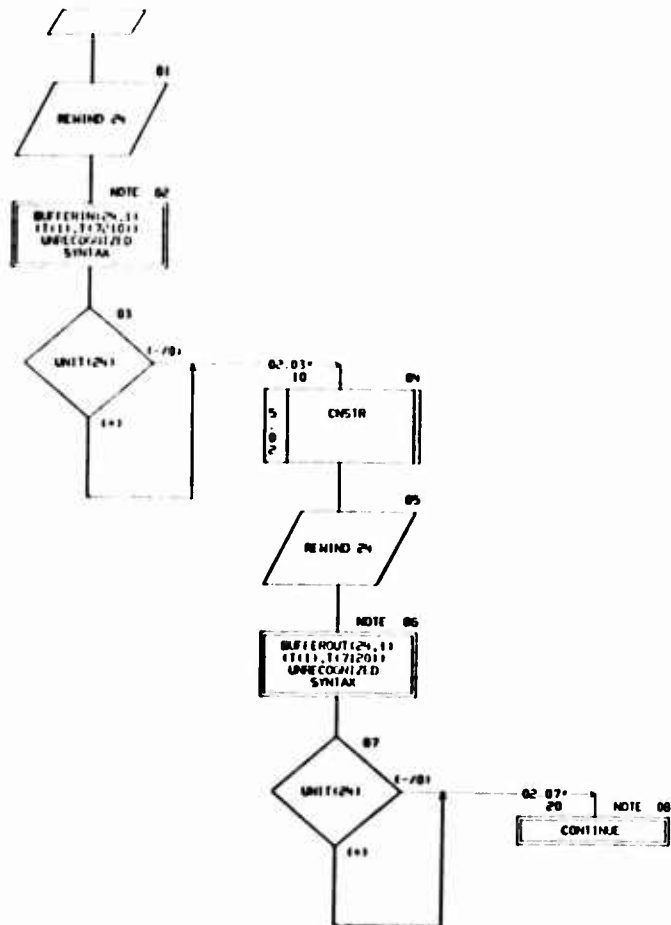


CHART TITLE - NEW PROCEDURAL STATEMENTS

PROGRAM CLAY10

CUPPER T171201

CUPPER /MISC/ RMISC11001

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE CISTR*****

TORQUE-BOX SYNTHESIS/WEIGHT ANALYSIS CONTROL

CHART TITLE - SCHEDULE CHART

CHART

02.04 ---h
 STRINGER ANALYSIS
 CONTROL PROGRAM
 ***REVISION 11-13-
 89--ADD C-SEC C/EST.
 SECTION/LOAD CALC.
 D1877)
 *CS10= 0.0 * LOOP 10
 FOR C-SEC ***
 ***REVISION 03-13-
 89--KSECT11 LOGIC.
 SETUP
 FCMAK, FTHM ***
 ADD EFF WIDTH FOR 10K
 AND MT CALC.
 REVISION -- 01-23-67
 -- CHANGE ND111 VS
 NK111 LOGIC.
 K=DI459)
 ADD INPUT 1.B
 GEOMETRY AND NK LOGIC
 REVISION -- 01-17-66
 -- NEW FORMAT AND
 LINKAGES.

SETUP CONTROLS FOR
 11-SECTION/10-PANEL
 DESIGN

MT. CALC. 10-IC 1=
 AREA, 2=AREA AND
 PANEL MT.

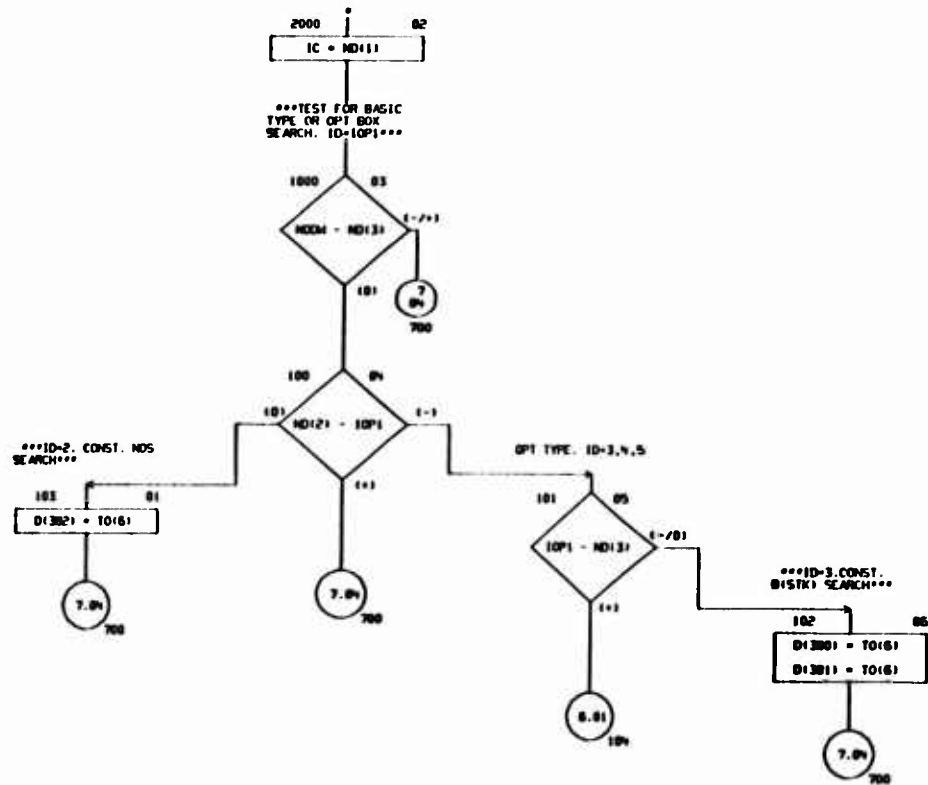


CHART TITLE: SUBROUTINE CNSTR

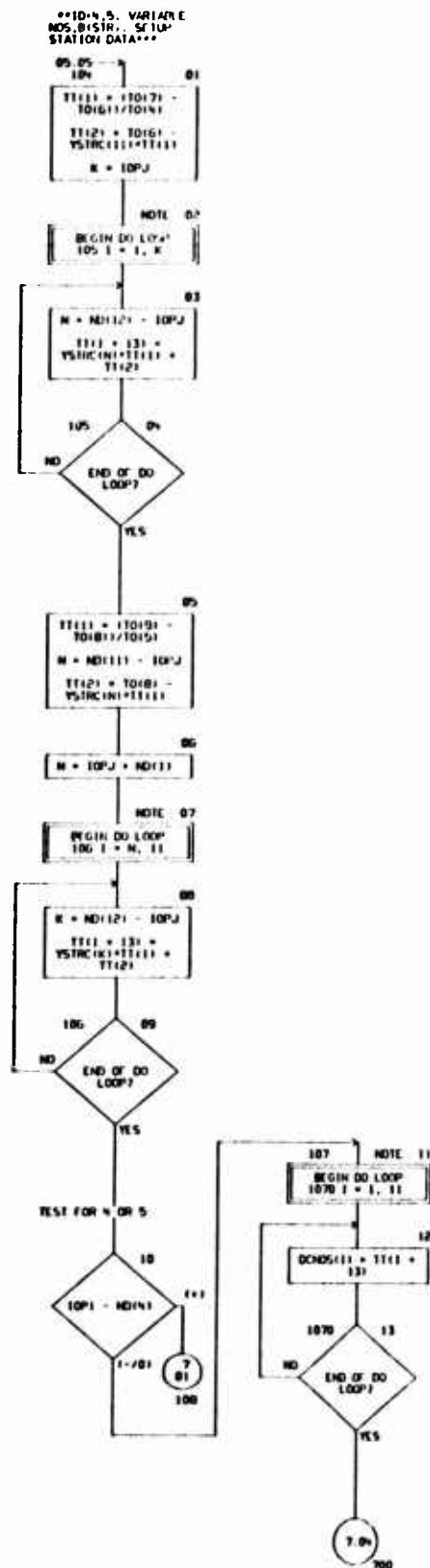


CHART TITLE - SUBROUTINE C222N

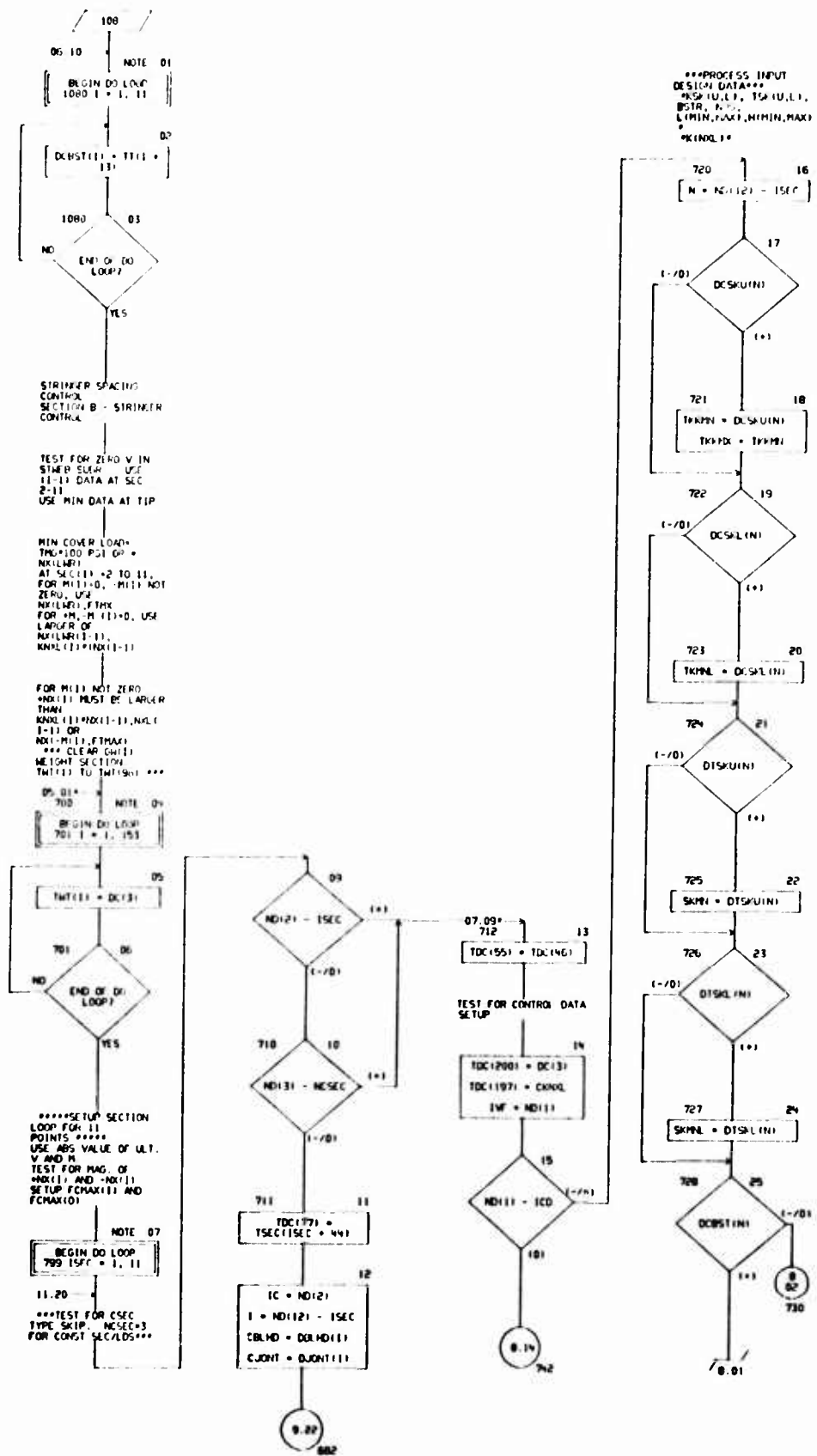


CHART TITLE - SUBROUTINE C151R

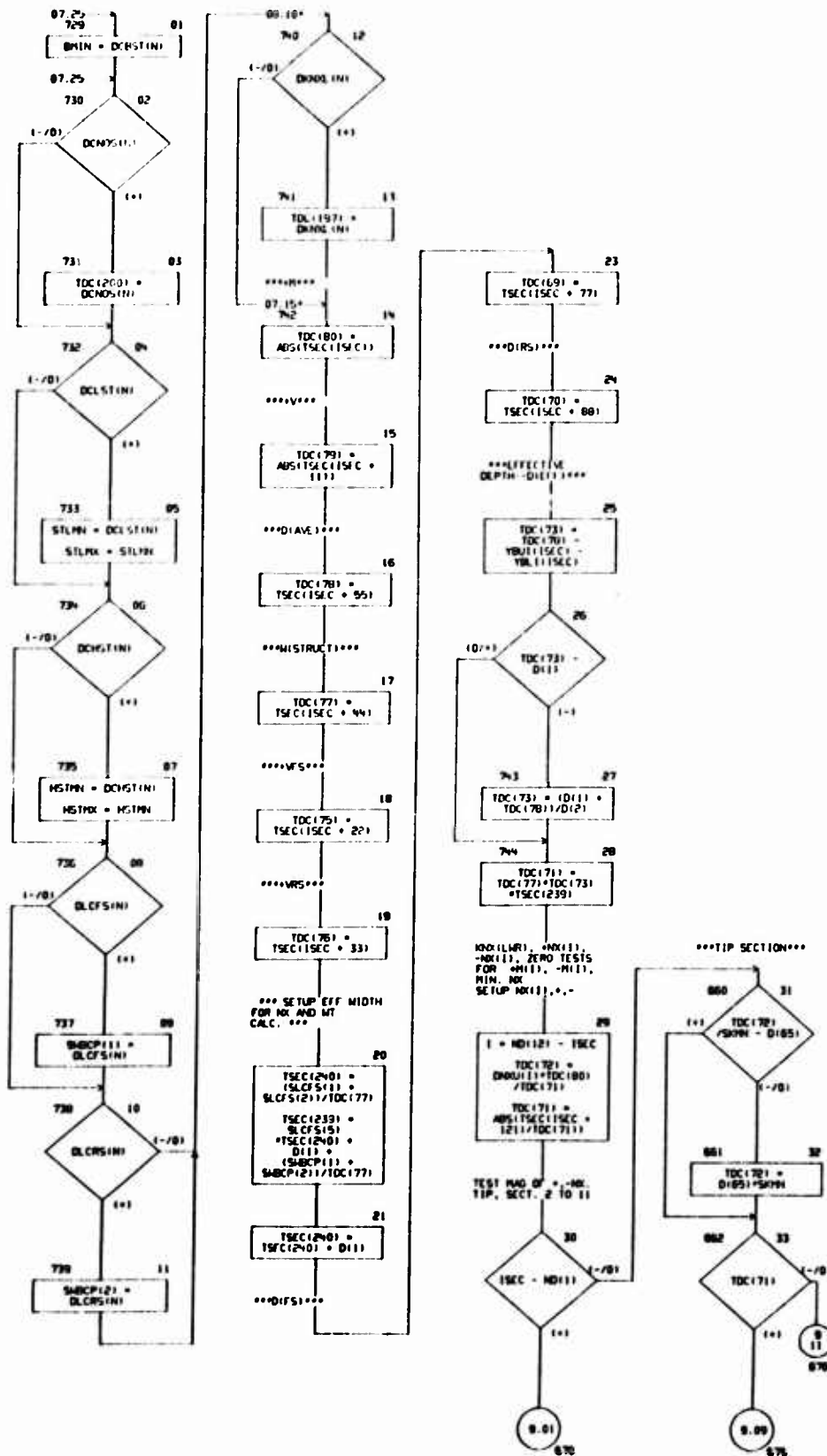


CHART TITLE - SUBROUTINE CMTN

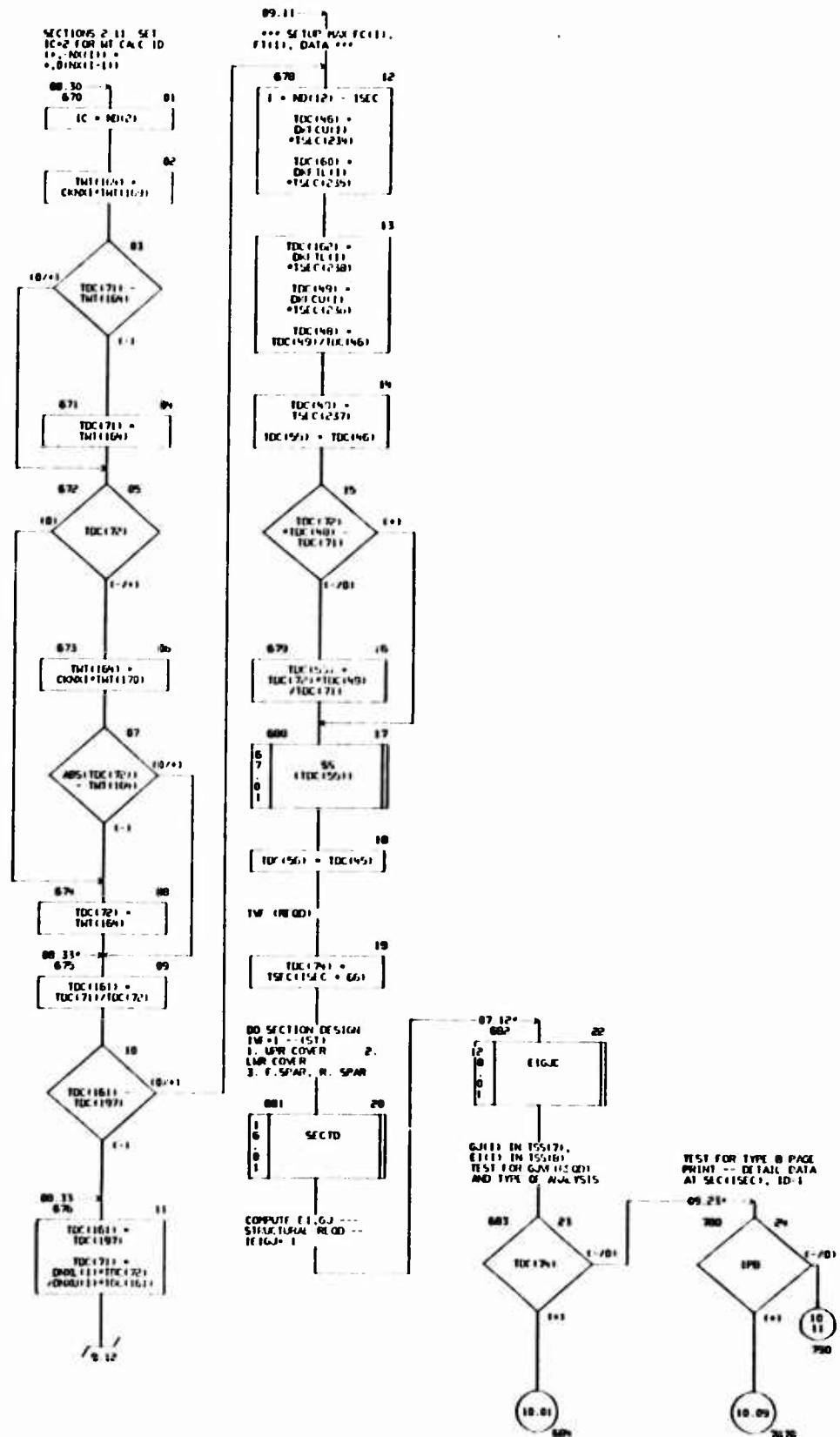


CHART TITLE - SARAJINE CHSR

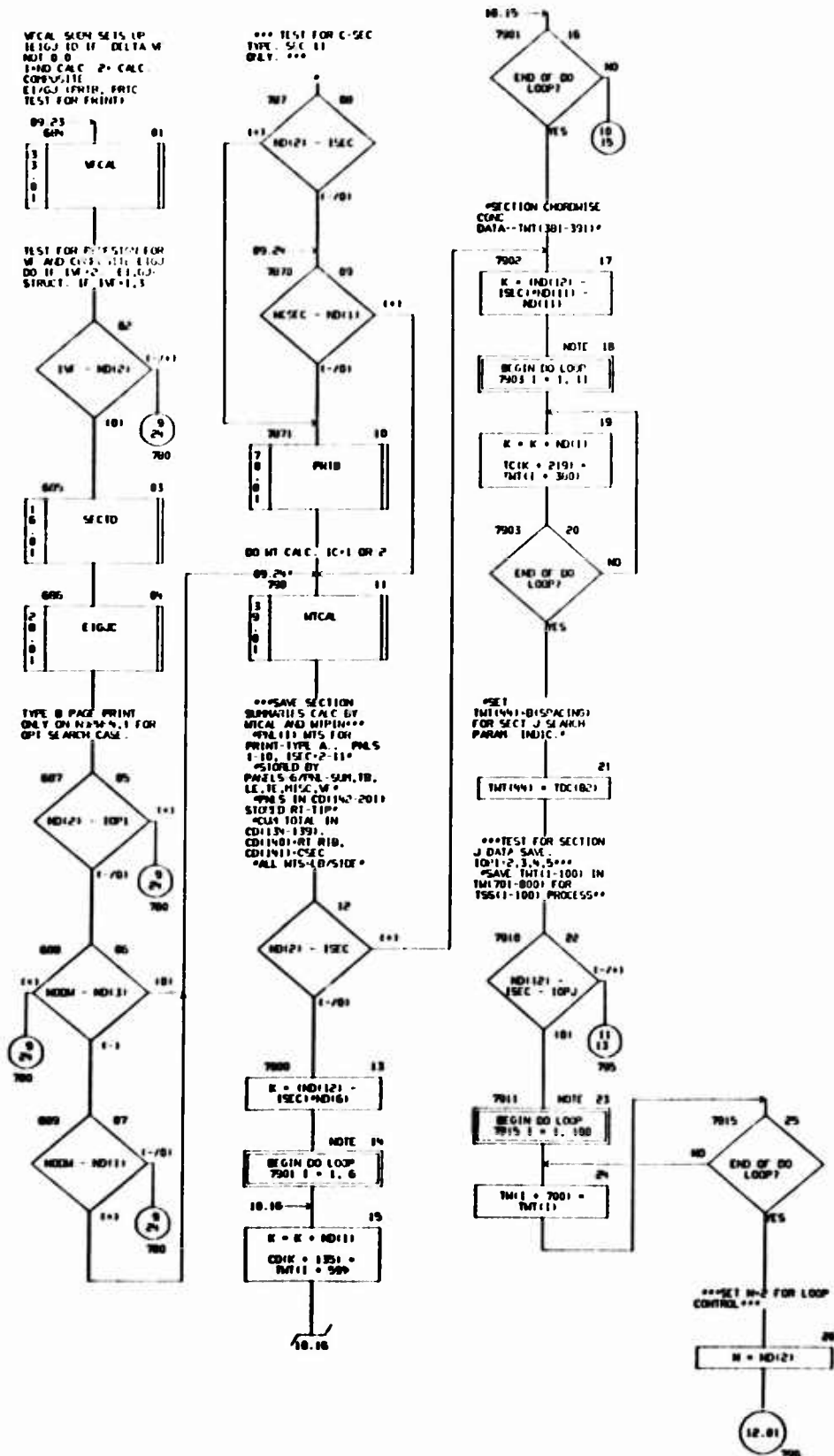


CHART TITLE - SIGNATURE ENGINE

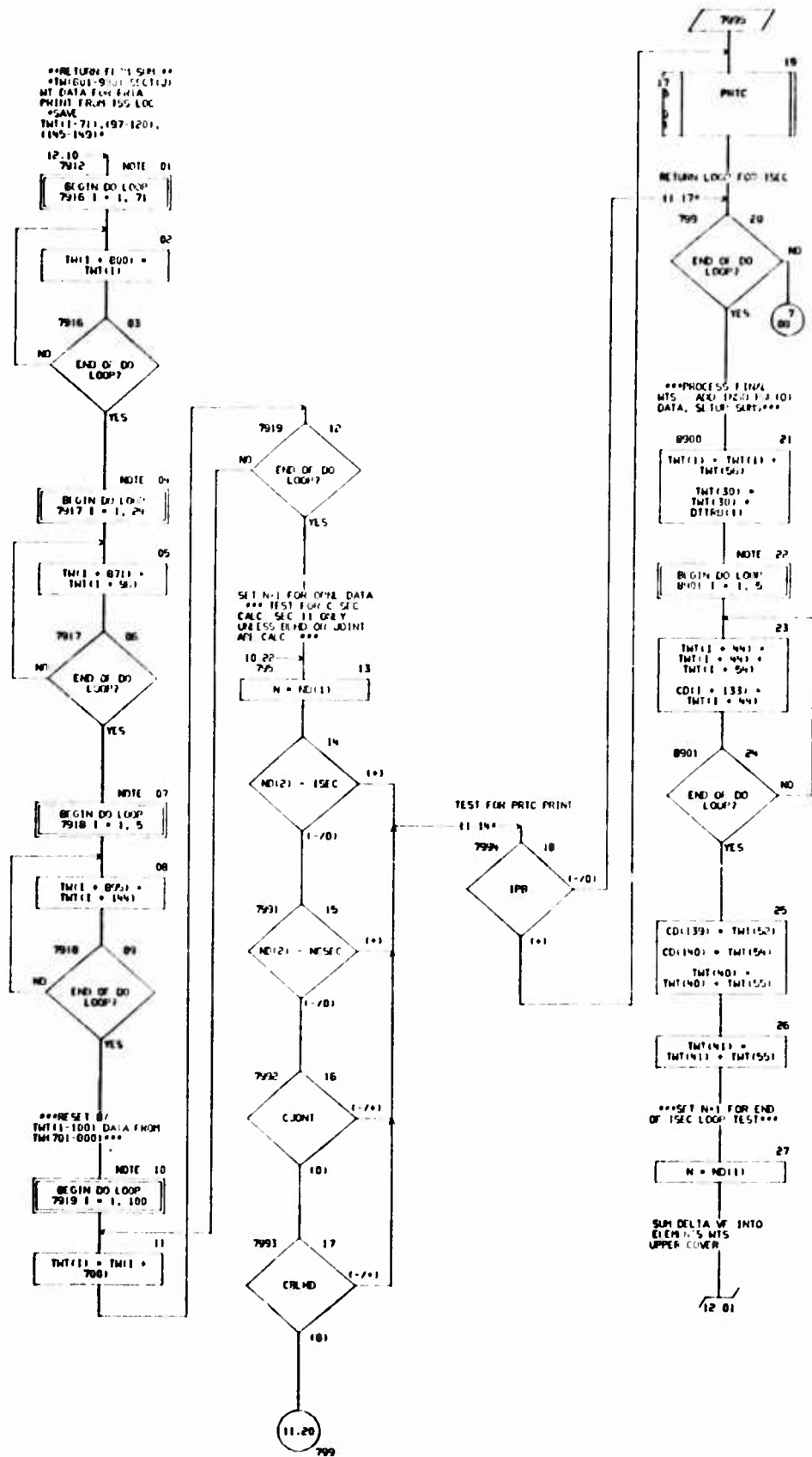


CHART TITLE - SHERIDAN CNSTR

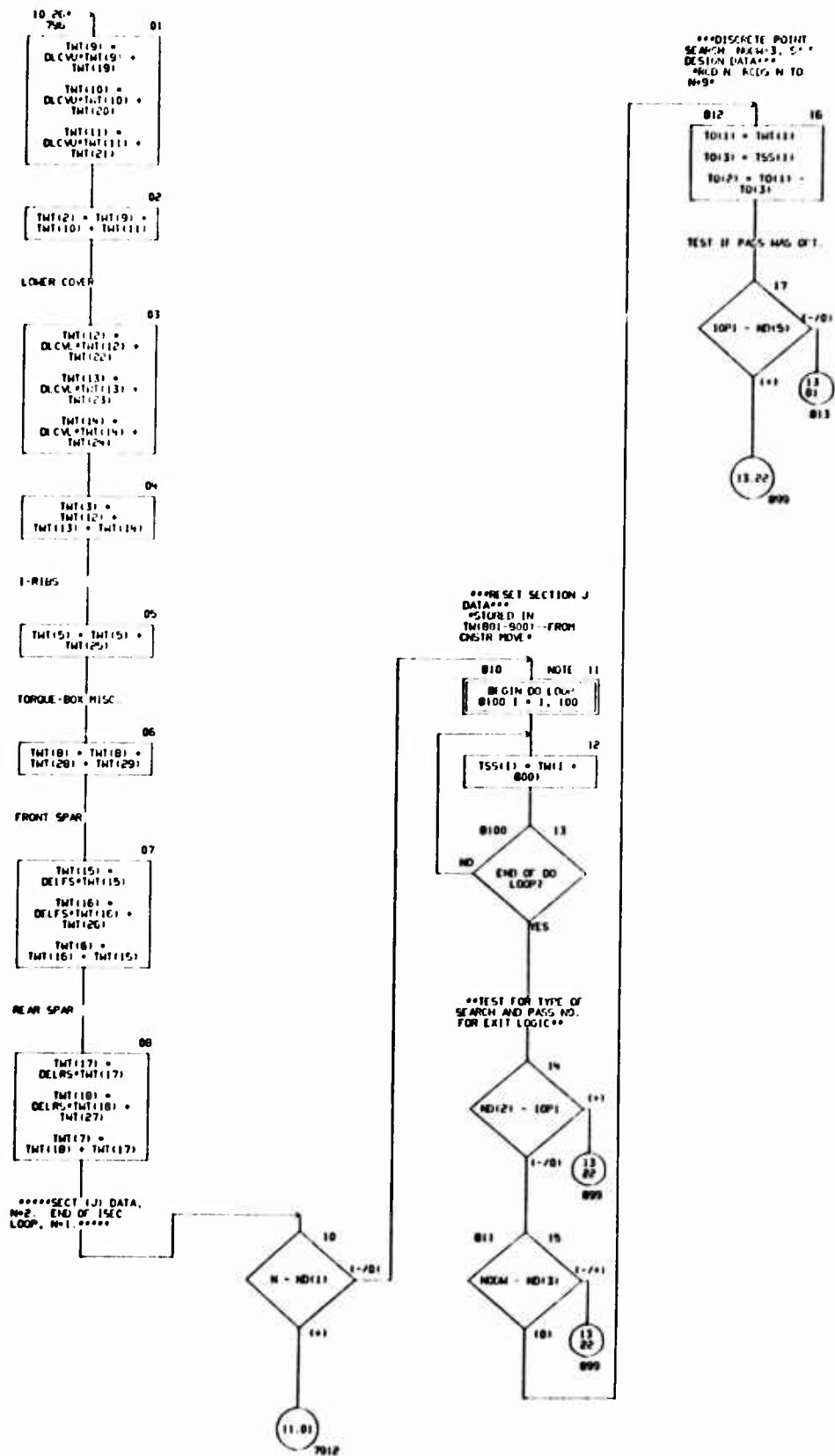


CHART TITLE - SUBROUTINE CNSTR

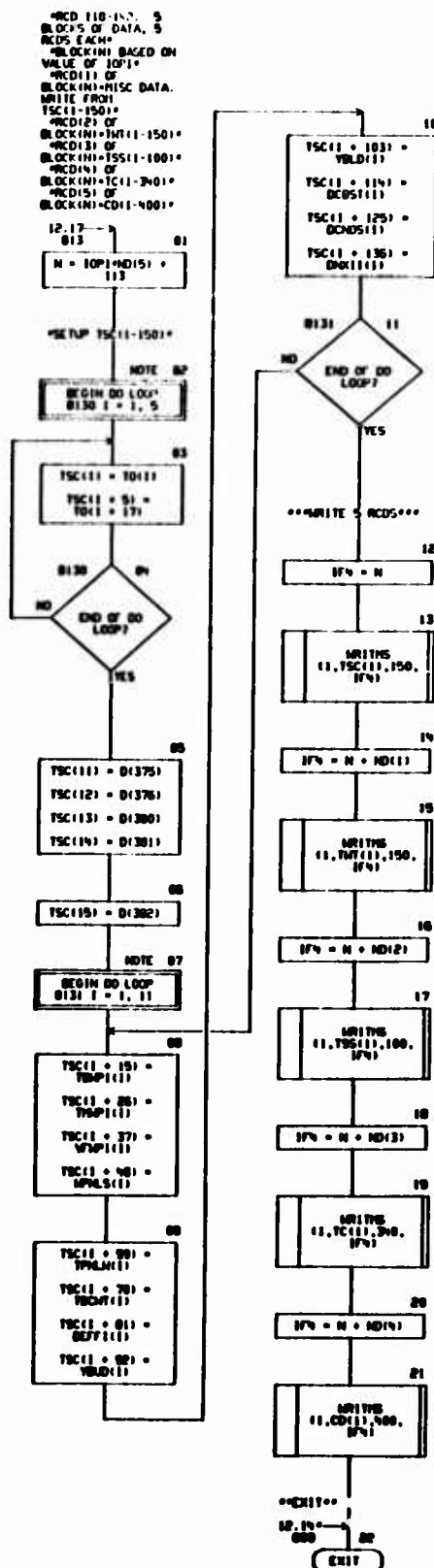


CHART TITLE - NEW PROCEDURAL STATEMENTS

```

COMMON T(2000),D(2000),C(2000),ND(100),TM(999)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),TMT(400),TSEC(300),
TC(340),T(140),T(124),DEL(30),
YSTRC(11),DJONT(11),DELND(11),DEAP(15),
DSCU(11),DSTL(11),DROU(11),DRUL(11),
DLCS(5),SABCP(2),
DTAB(2),
YBLD(11),YBLD(11),YBL(11),YBL(11),DEFF(11),DCK(11),
TBLP(11),TBLP(11),WMP(11),W(2511),TBLM(11),TDCMT(11),
DCSAU(11),DCSA(11),DTSAU(11),DTSAL(11),DCBS(11),DCBOS(11),
DCLST(11),DCVST(11),DLCS(11),DLCS(11),DNDL(11)
EQUIVALENCE (DC(1),D(1401)),(TDC(1),T(1341)),(TSC(1),D(1541)),
(TSS(1),T(1561)),(TMT(1),C(1101)),(TSC(1),C(1501)),
(TC(1),T(1601)),(T(1),T(1620)),(T(1),T(1317)),
(YSTRC(1),TSC(166)),
(DOPI(1),D(1475)),(DL(1),TMT(2511)),(DTPVT,D(2001)),
(DLCV,D(11)),(DLCV,D(141)),(DEFS,D(113)),(DEFS,D(117)),
(C(ND(29)),C(ND(30)),(N(ND(31)),T(PA,ND(23)),T(PD,ND(24)),
(TOP(ND(74)),T(OPJ,ND(80)),T(OPJ,ND(82)),
(TC(ND(48)),T(CD,ND(49)),T(W,ND(51)),
(TSEC,ND(95)),(TNDW,ND(156)),(TNESEC,ND(163)),(T(4,ND(193))
EQUIVALENCE (CAX(1),D(74)),(SAPN,D(370)),(CAXAL,D(392)),
(SABCP(1),D(423)),(DELND(1),D(1540)),(DJONT(1),D(1661)),
(DROU(1),D(1911)),(DRL(1),D(1942)),(DSCU(1),D(1639)),
(DSTL(1),D(1000)),(DOPIP,D(1399)),(DLCS(1),D(1470)),
(DELND,TMT(200)),(DJONT,TMT(201)),
(YBLD(1),TSC(133)),(YBL(1),TSC(108)),(DCK(1),T(1723)),
(YBLD(1),T(1679)),(YBLD(1),T(1690)),(DLFF(1),T(1000)),
(TBLM(1),T(1645)),(TBLM(1),T(1656)),(TDCMT(1),T(1709)),
(TBLP(1),T(1745)),(TBLP(1),T(1770)),(WMP(1),T(1746))
EQUIVALENCE (DCSAU(1),D(1721)),(DCSA(1),D(1732)),
(DTSAU(1),D(1743)),(DTSAL(1),D(1744)),(DCBS(1),D(1765)),
(DCBOS(1),D(1776)),(DCLST(1),D(1787)),(DCVST(1),D(1798)),
(DLCS(1),D(1809)),(DLCS(1),D(1820)),(DROU(1),D(1831)),
(TP2W,TDC(164)),(TNDW,TDC(165)),(TNDW,D(1395)),(SAPN,D(1394)),
(TP1W,D(1390)),(STLPH,D(1375)),(STLPH,D(1376)),
(DTTRB(1),T(166)),
(HSTW,D(1377)),(HSTW,D(1378))

```

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE SECT*****

TORQUE-BOX SECTION SYNTHESIS - SEARCH LEVEL 1 CONTROL

CHART TITLE - SUBROUTINE SECTD

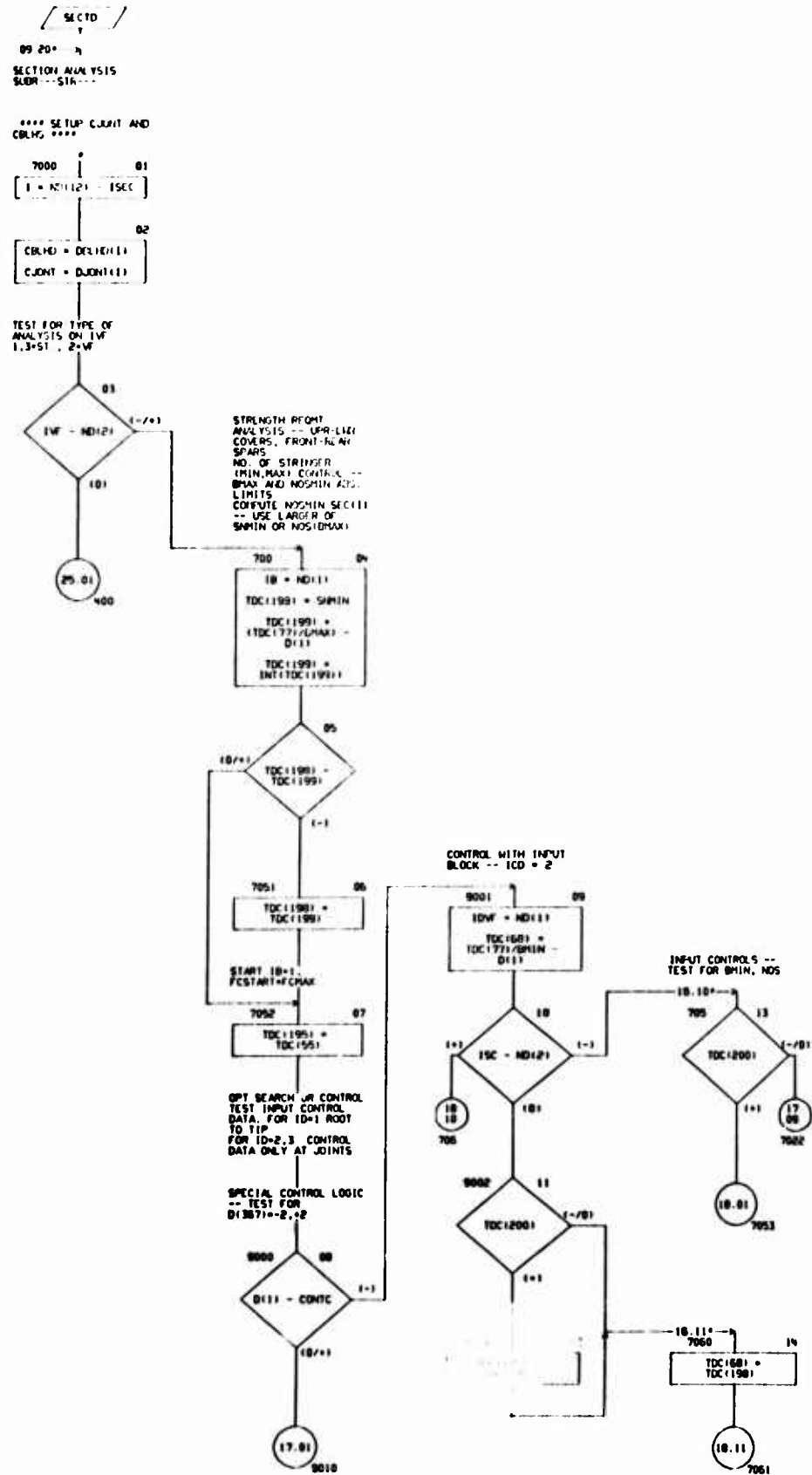


CHART TITLE - SUBROUTINE SECTD

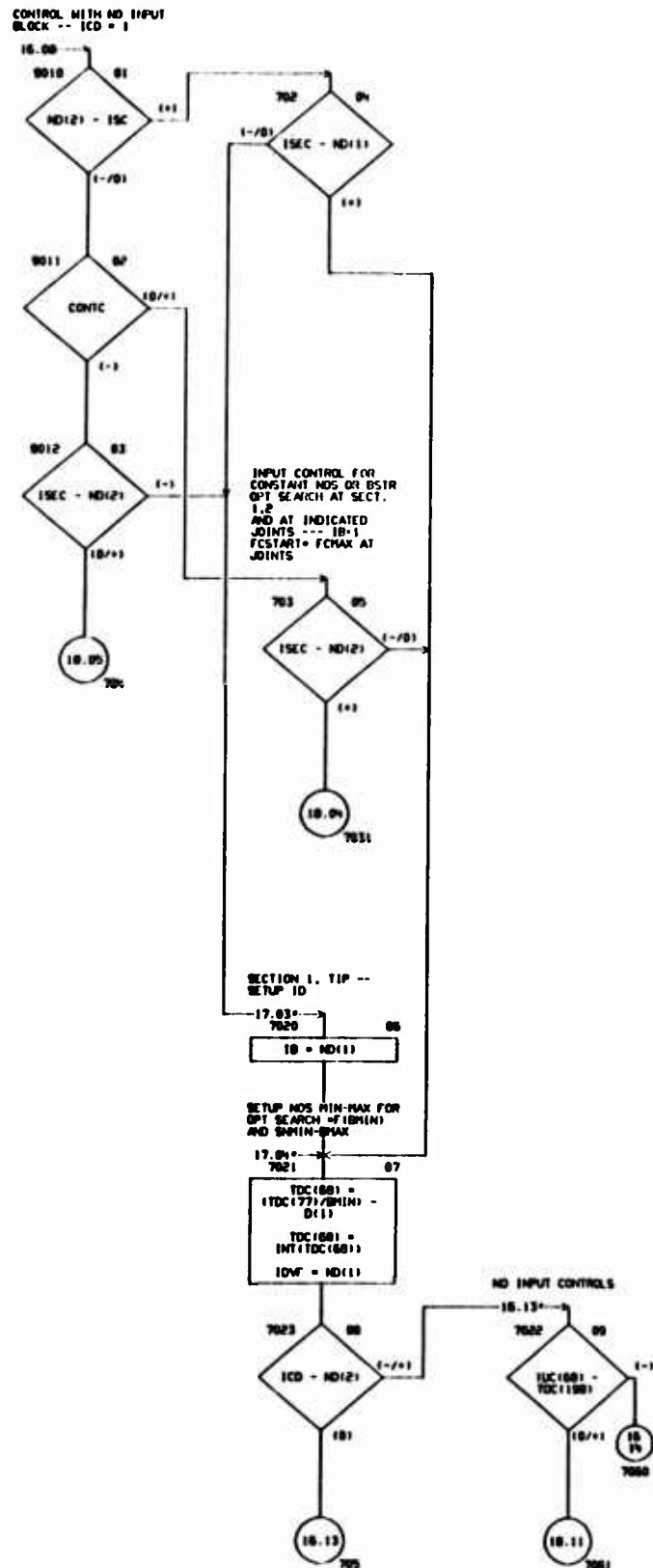
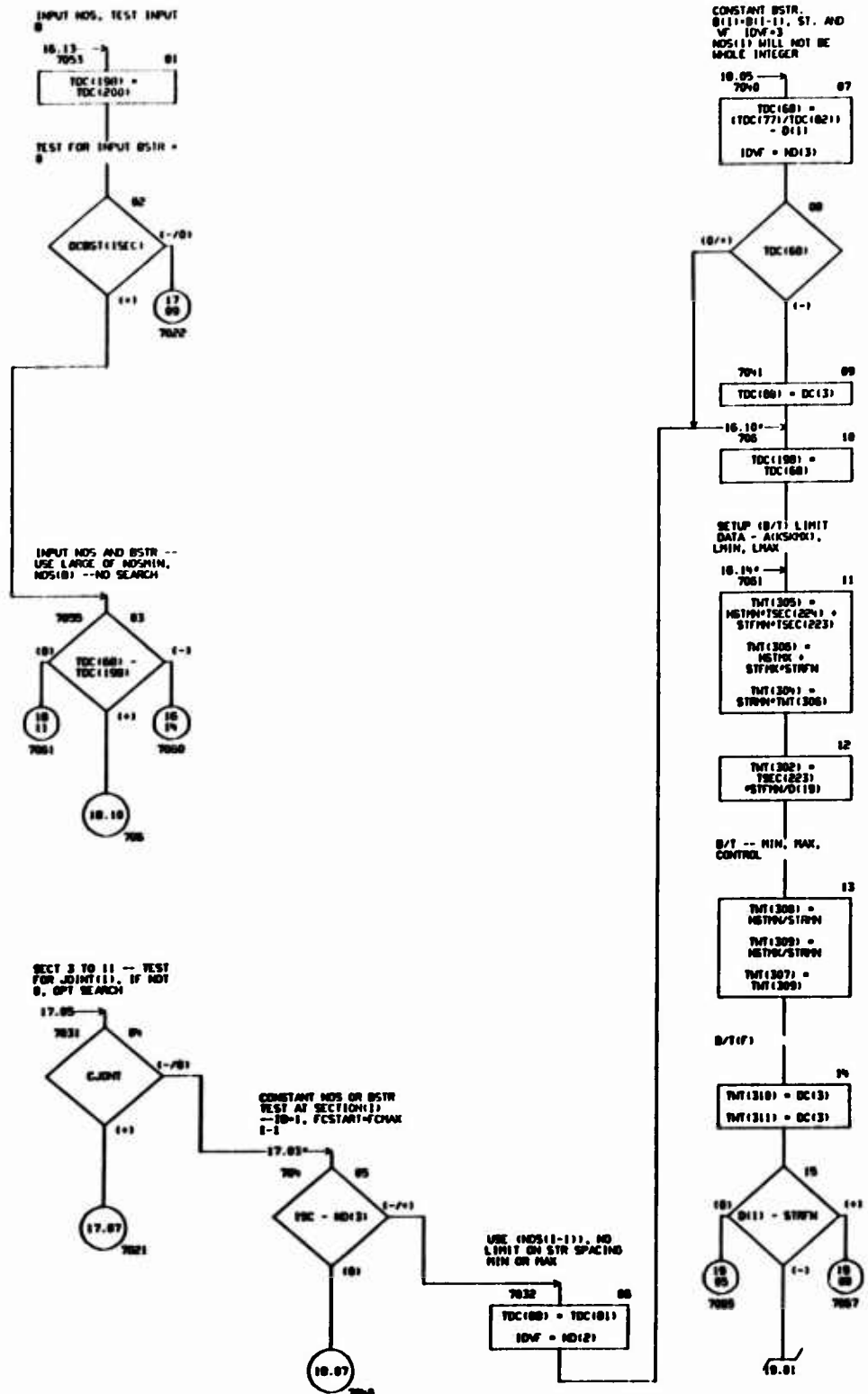


CHART TITLE - SUBROUTINE SECTD



```

graph TD
    1015[10 15  
7003  
TMT(311) =  
STRTM/STPRM] --> 01
    2121[2121 TYPE, INTERM  
ID, 1-H, 2-F FOR LNR  
B/F] --> 02
    1011[1011 = ND(1)] --> 02
    02 --> 03
    1011{1011  
TMT(311) =  
TMT(109)  
+TSC(1221)} --> 1-1
    1-1 --> 7004[7004  
1011 = ND(2)] --> 04
    2111[2111, 2121, MAX B/F  
ID, 1-H, 2-F] --> 05
    1015[10 15  
7005] --> 05
    1011{1011  
TMT(303) =  
TSC(1221) +  
TMT(310)} --> 1-1
    1-1 --> 7006[7006  
1011 = ND(2)] --> 07
    1011{1011  
TMT(307) =  
TMT(310)  
+TSC(1221)} --> 1-1
    1-1 --> 7007[7007  
MIN STR AREA FOR MIN  
GEOMETRY, MAX(A)] --> 08
    1015[10 15  
7007] --> 08
    1011{1011  
TDC(111) =  
STRM+TMT(305) +  
TSC(1225)} --> 1-1
    1-1 --> 7008[7008  
TMT(305) =  
STRM+TMT(305) +  
TSC(1225)} --> 09
    1011{1011  
FC(START) = FC(MAX)} --> 09
    1015[10 15  
7008] --> 09
    1011{1011  
TDC(195) =  
TDC(195)  
+TDC(191)  
+TDC(192)} --> 1-1
    1-1 --> 7009[7009  
SETUP STARTING NOS] --> 19
    19 --> 20
    20 --> 21
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    2
```

CHART TITLE - SUBROUTINE SECTD

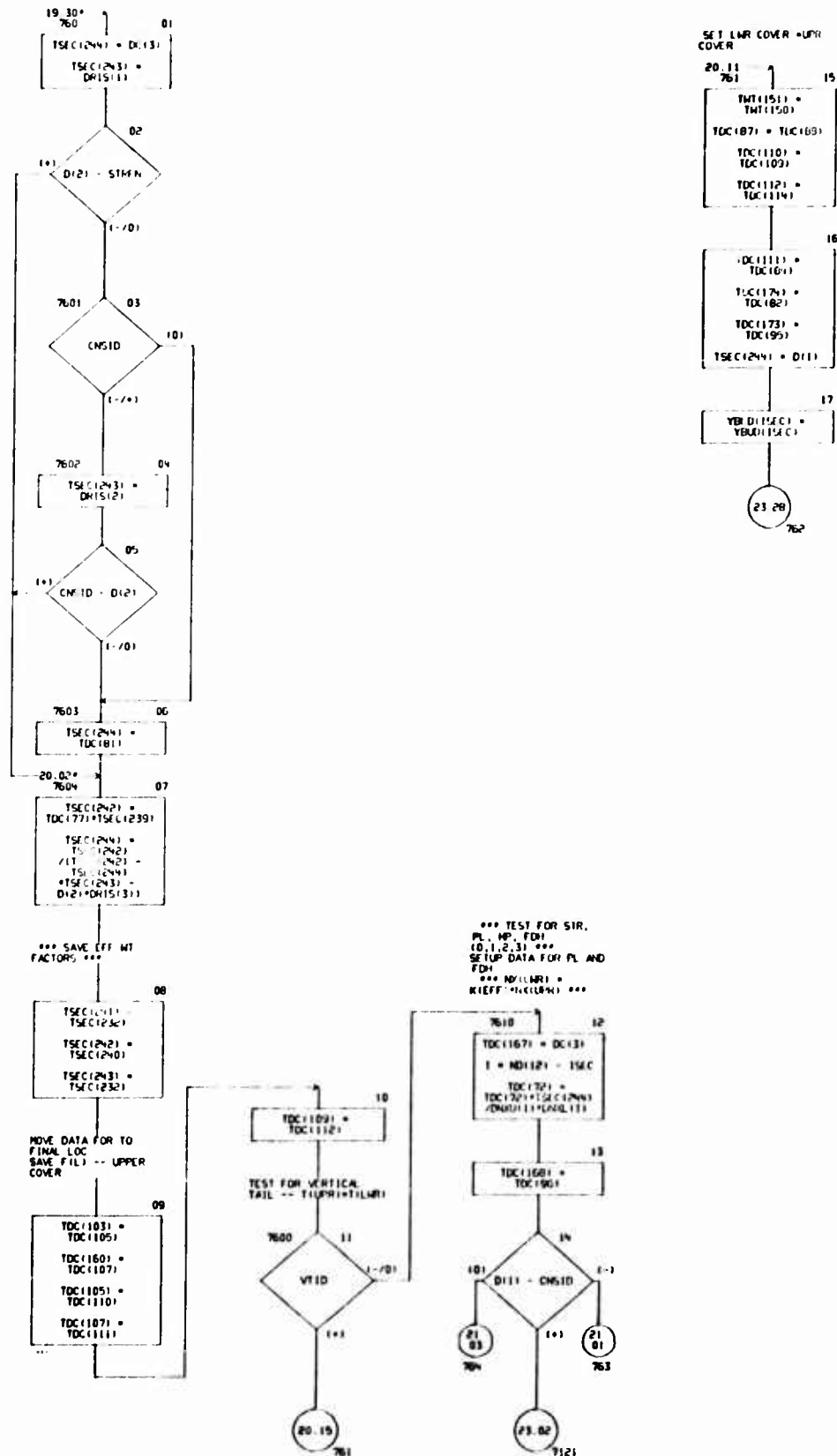


CHART TITLE - SUBROUTINE SEC10

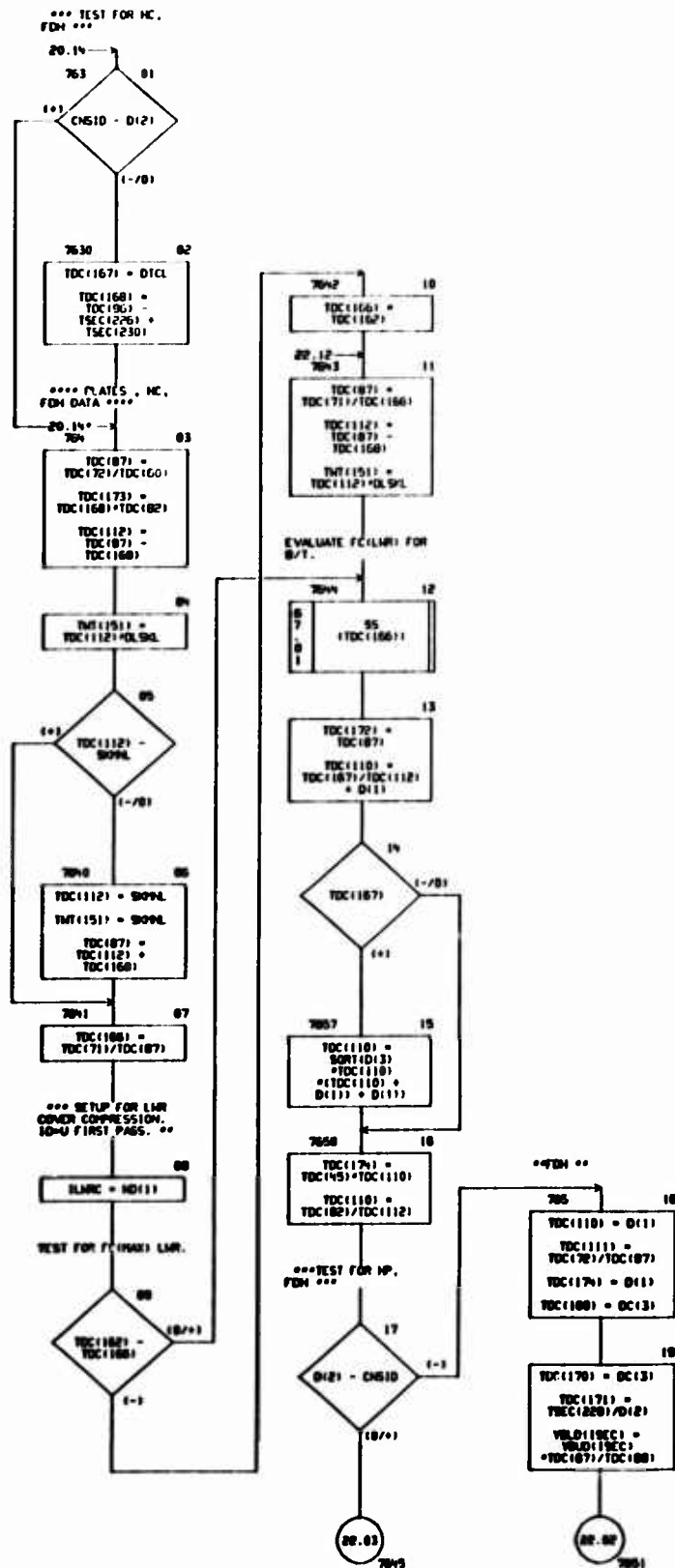


CHART TITLE - SUBROUTINE SEC10

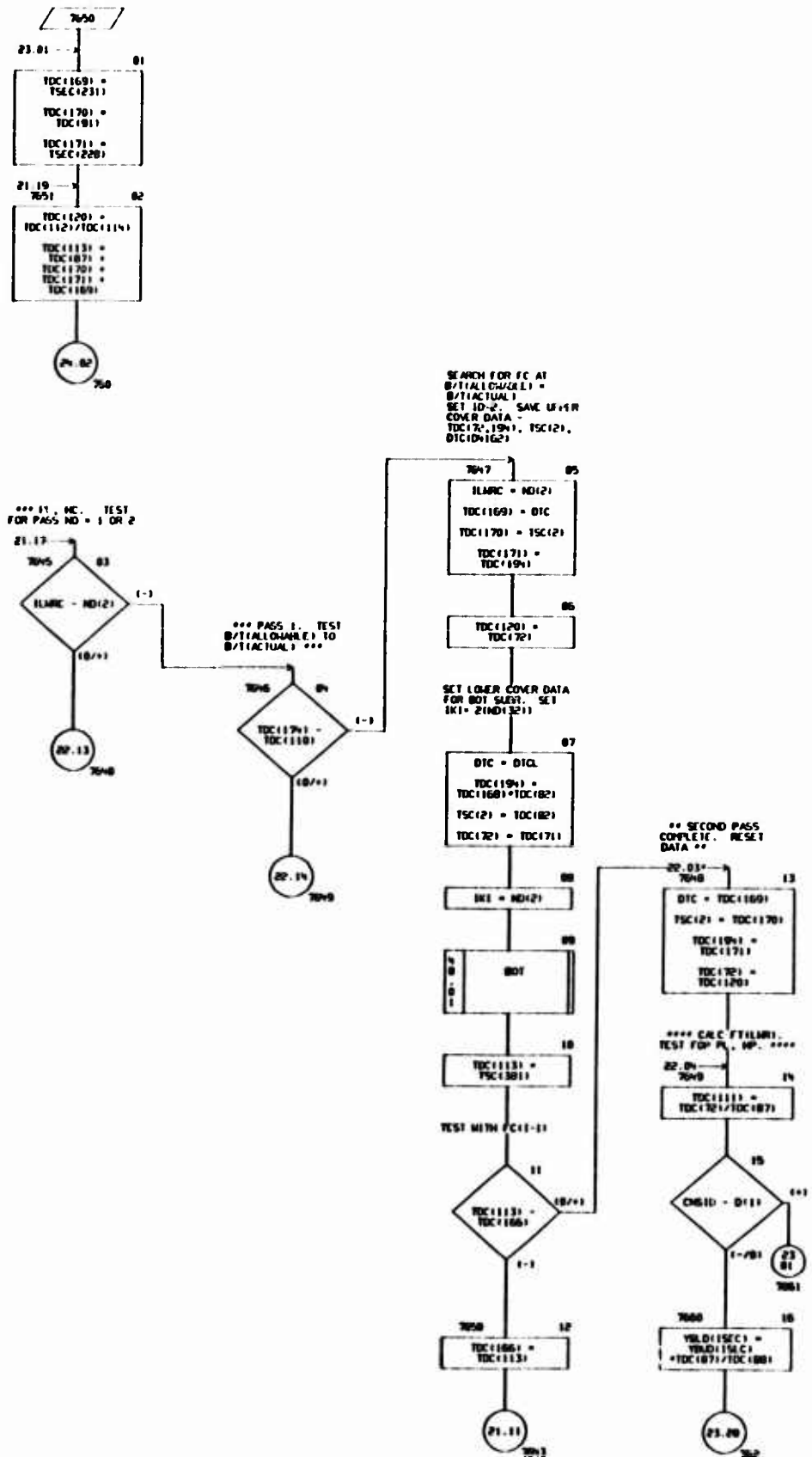


CHART TITLE - SHEEP TIME - SCLD

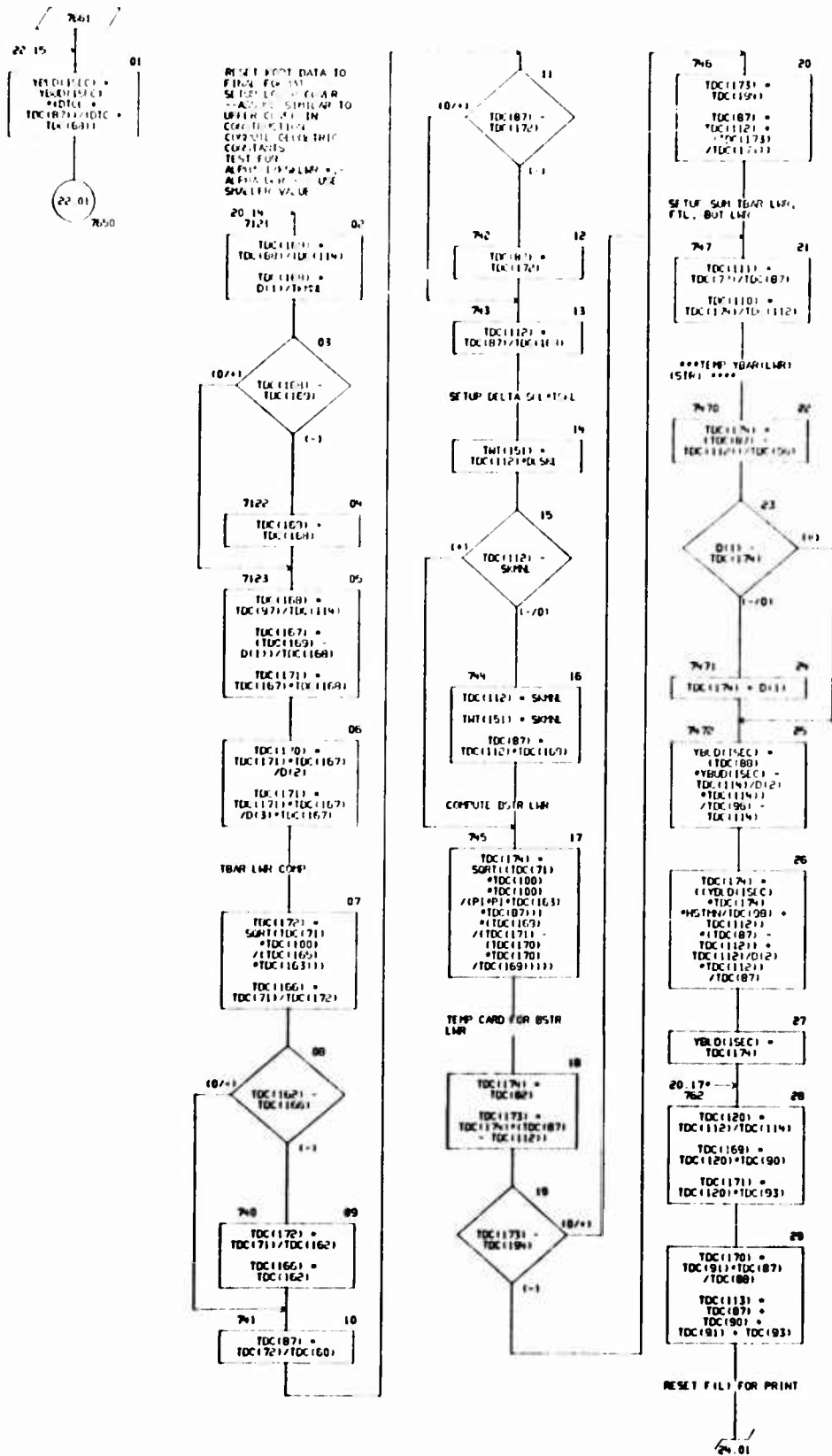


CHART TITLE - SLEEP WING

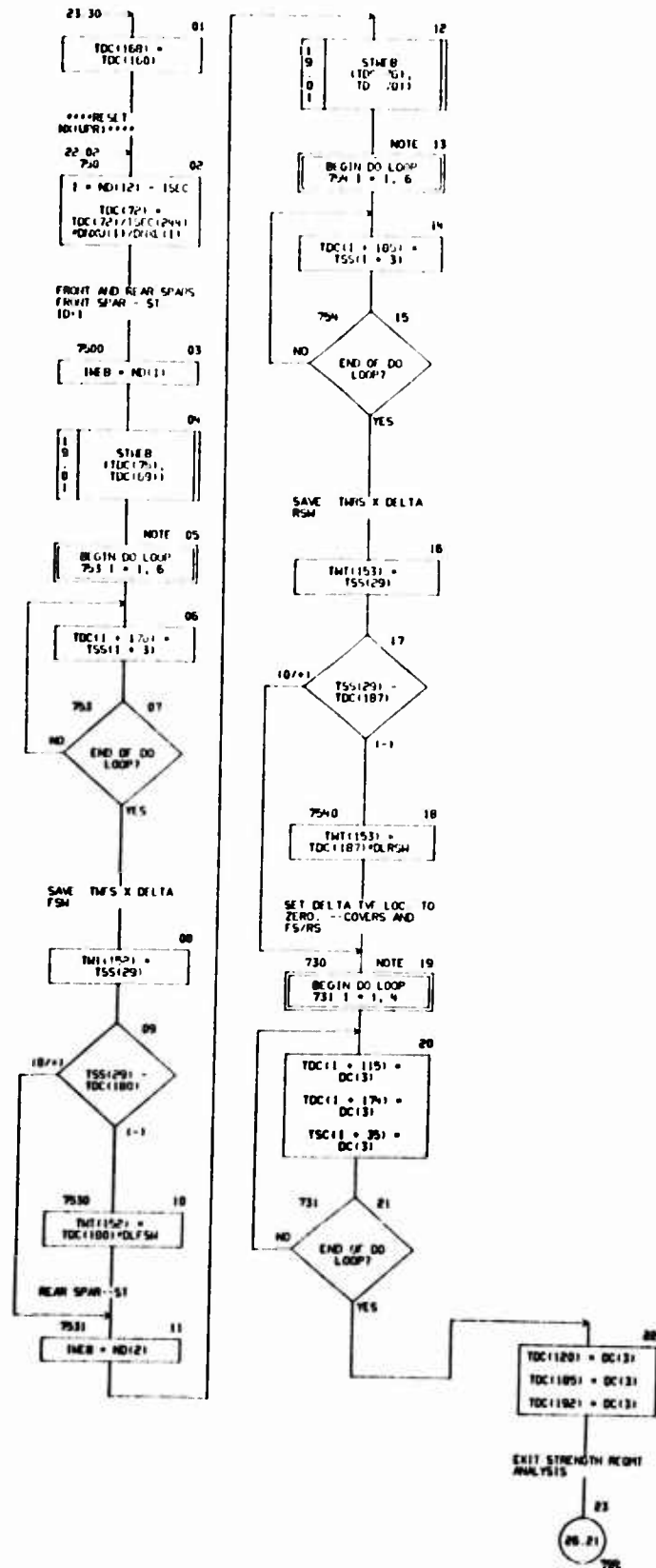


CHART TITLE - SUBROUTINE SEC10

VF CALC. TEST DELTA
 B=CONST B(1)=1
 TSC(80)=NDSIMAX1
 TSC(72)=NDSIMIN1
 COMPUTE TOTAL
 PENALTIES -- TEST
 EACH COMPONENT

UPPER COVER

18-03

400

01

TDC(118)

1-1

PS-07

715

SAVE STRUCT DATA IN

VF BLOCK

721

NOTE 02

BEGIN DO LOOP

7220 I = 1, 35

03

TSC(I + 40) =

TSC(I)

7220 04

END OF DO

LOOP?

NO

YES

TEST DELTA TW LWR --

TW(EQU) =

(GILWR)/GILWR1)

XTW(EQU)

26-14

722

05

TSC(30) = DC(3)

06

TDC(117)

1-1

PS-15

717

707

707

707

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707

TW(EQU) = TSC DELTA

TW

25-01

715

07

TW = ND(2)

TSC(99) =

TW(150) =

TSC(116)

TSC(70) = TDC(81)

TEST FOR 5TH

ORIENTATION

08

10W = ND(2)

1-1

26-01

717

OPT SEARCH FOR V.F.

7150

09

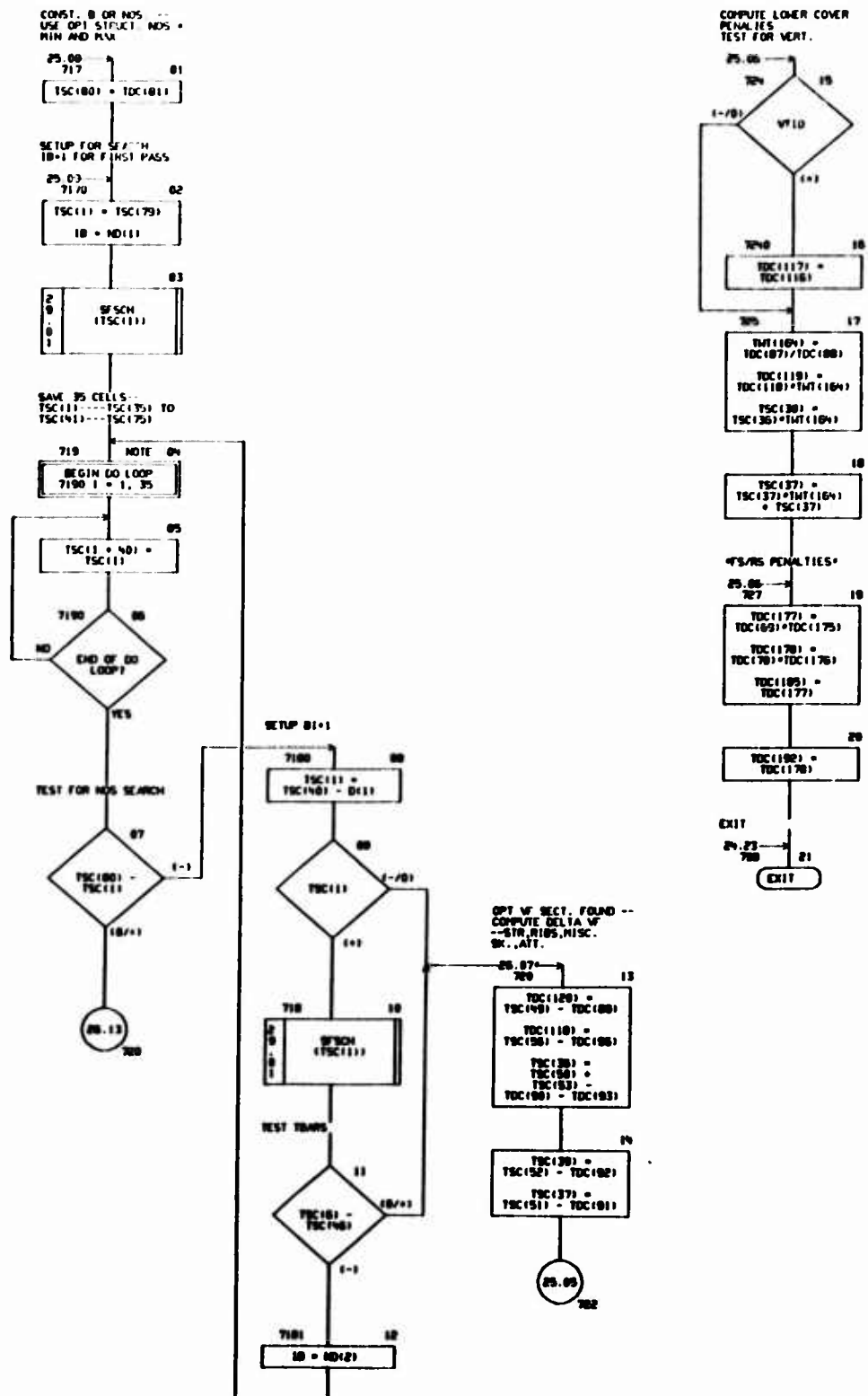
TSC(80) =

TDC(190)

26-02

7170

CHART TITLE - SUBROUTINE SECTD



06/11/76

AUTOREG CHART SET - SHEEP - WITH AND WITHOUT NOISE - PAGE 28

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBJECTIVE SENSE*****

SEARCH LEVEL 2 CONTRA - ALLOWABLE DESIGN STRESSES

[W.S.M.]

19 12- 7
FC SEARCH SLIPROUTINE.
GIVEN 01, WID AND
BID

```

1WF1 TSK SEARCH ID
1=OPT TSK, 2= 1WF,
3=TSK(1INPUT)
1BI=1 START AT FCMAX.
*2 USE FC1-1
BSIR = NO OF SIR

```

SETUP @ AND MOVE IDS

```

3001      TSC(1) = BSTR
      TSC(3) = TDC(195)
      TSS(12) =
      TDC(195)
      TSC(2) =
      TDC(77)/(TSC(1) +
      D(1))

```

*** LUP
KICAP/SPARS,
KIRIP) FOR STR. PL.
MP, FLH. ***
**ADD NET EFF WIDTH
FOR TENSION**

TSC12321 =
TSC111/TSC111 =
0111

TSC12601 =
0115121

TSC12991 =
TSC111

```
TSEC(233) =  
TSEC(1) =  
0.211/TSEC(1)
```

```

**TEST CONST.**

```

[illegible]

••TEST FOR STR OR
N/SPAR••

3003 06
STERN - D11
1-703

3005
TSEC(244) = DC(3)
29.08

```
TSEC(232) = D(1)
TSEC(260) =
DNIS(1)
```

3000
TSEC(233) *
TSEC(232)

```
***CALC READ T-BAR  
INSERTS, EFF TENSIO  
WIDTH DATA***
```

29.04-1
3009

TSEC(226) •
TSEC(225)/TSC(2)
•TSEC(232)

TSEC(230) •
TSEC(229)/TSC(2)
•TSEC(232)

TSEC(261) =
TDC(77)*TSEC(239)
TSEC(244) =
TSEC(261)
/(TSEC(261) -
TSEC(244))
*TSEC(260) -
D(2)*DR(5(3))

SETUP LOC OF F1,F2,
DATA

LF1 = NO(13)
LF2 = NO(14)
LF3 = NO(15)

```

***CALC. FC(UPR) F
T-BAR SET BY
TENSION***
FC=(INDC*FT)/(NXT).
NXT=NXL1*10N(EFF)
1000J/100L

```

TVF SEARCH - USE
OPTISID FCCR

301 19

155(12) = 1DC(14)

155(67) = 155(92)

30.04

1 • ND(12) - TSEC
TSS(67) •
TDC(72)/TDC(71)
*DOL(1)/DOL(1)
*TDC(49)
/TSEC(244)

3004 16
TSS(67) -
TSC(3)
(10/+)

2005	17
TSC(3) = TSS(67)	
TSS(12) = TSS(67)	

TEST FOR G-1, TVF, OR
TSK INPUT

NO:21 - 1W

SI TSK OPT OR INPU
-- TEST IB

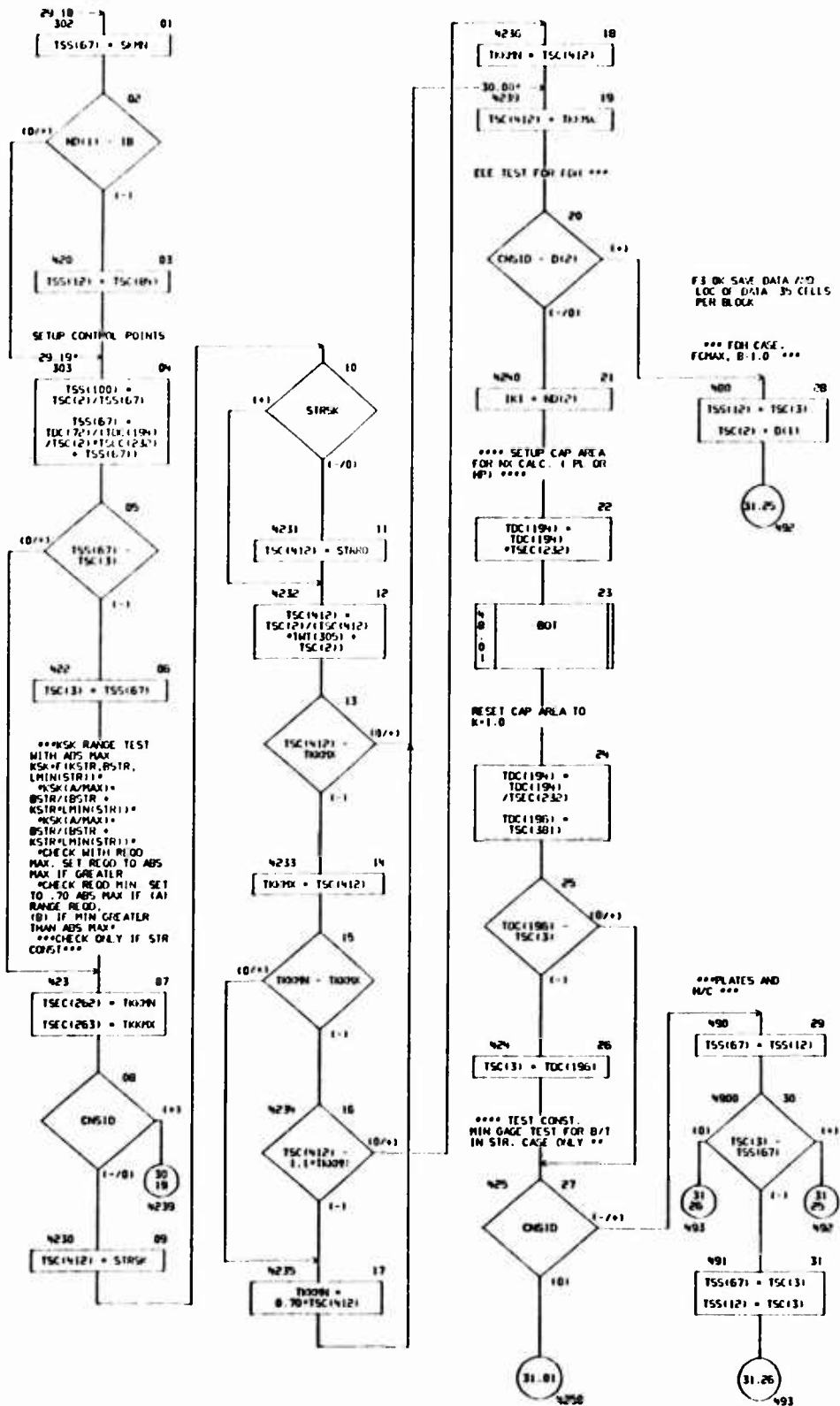


CHART TITLE - SUBROUTINE SETSUBROUT

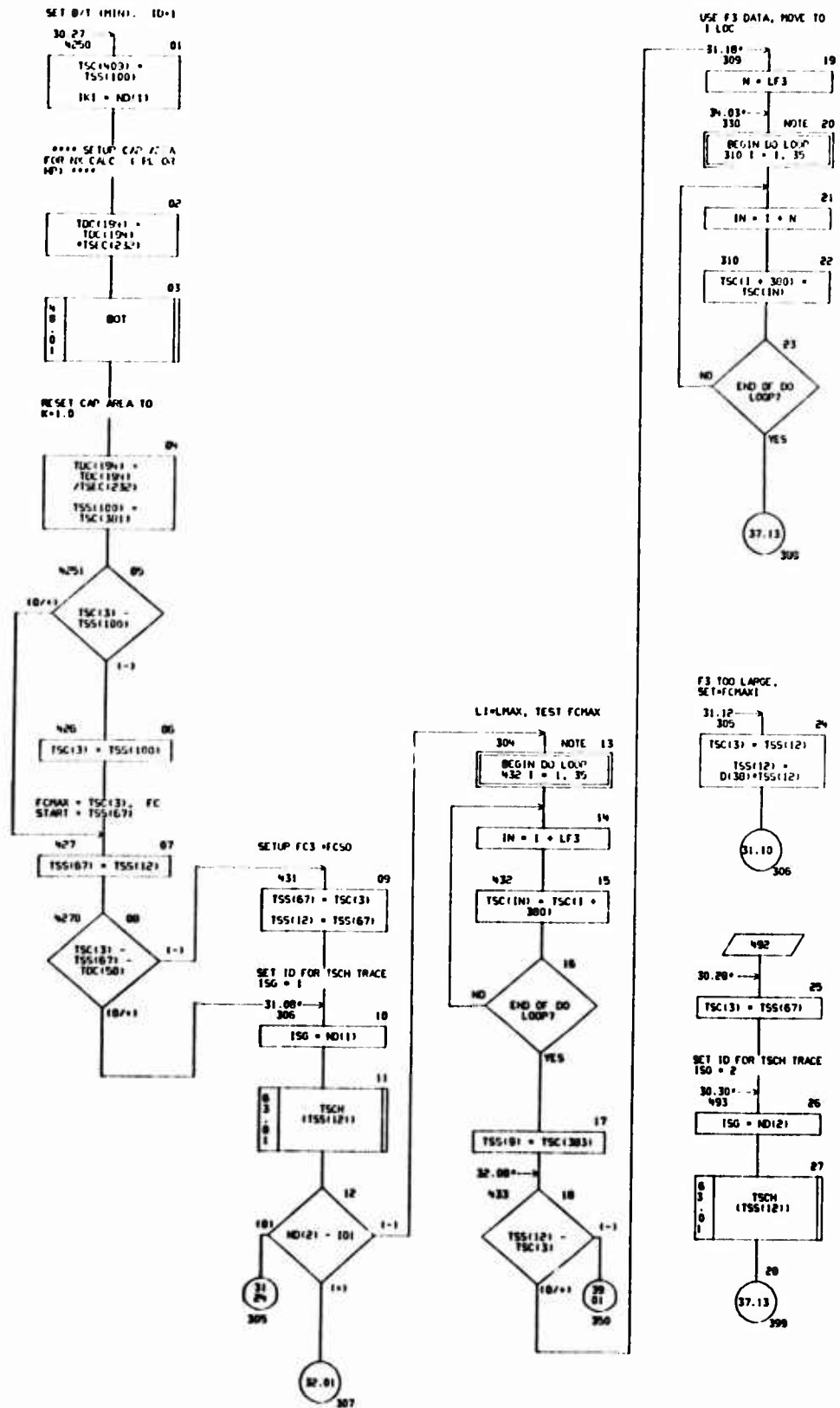


CHART TITLE - SUBROUTINE S55H51R1

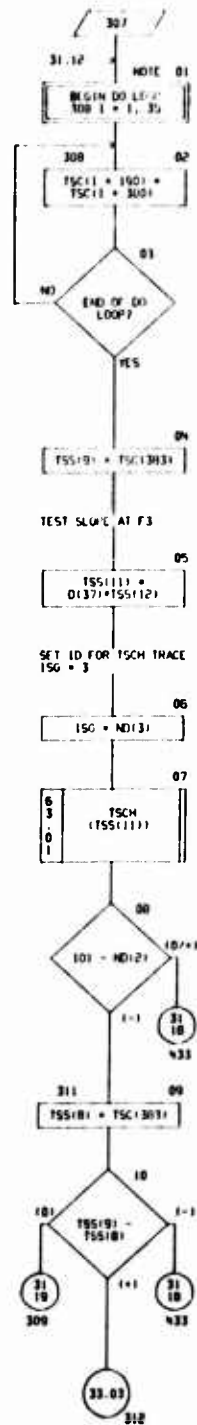


CHART TITLE - SUBROUTINE SFSCHDSTR

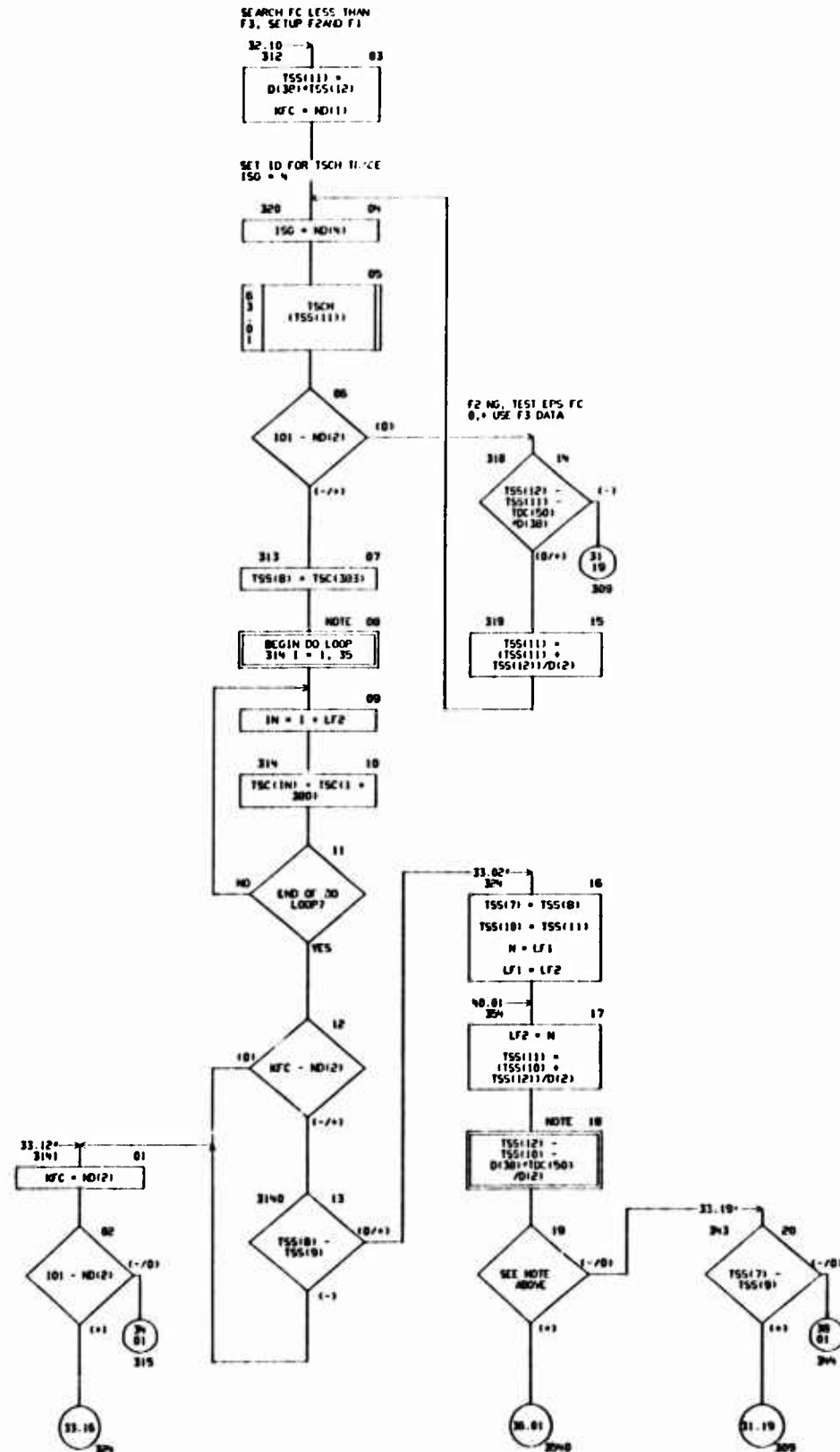
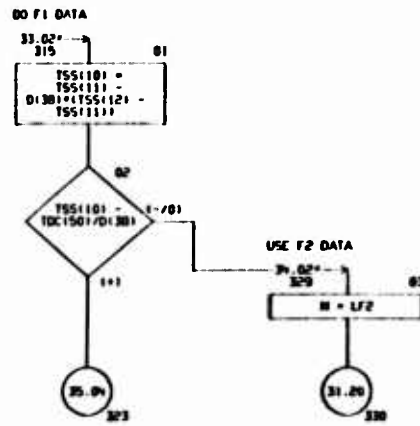


CHART TITLE - SUBROUTINE SFSCHEMSTR1



SET ID FOR THIS TRACK
156 - 5

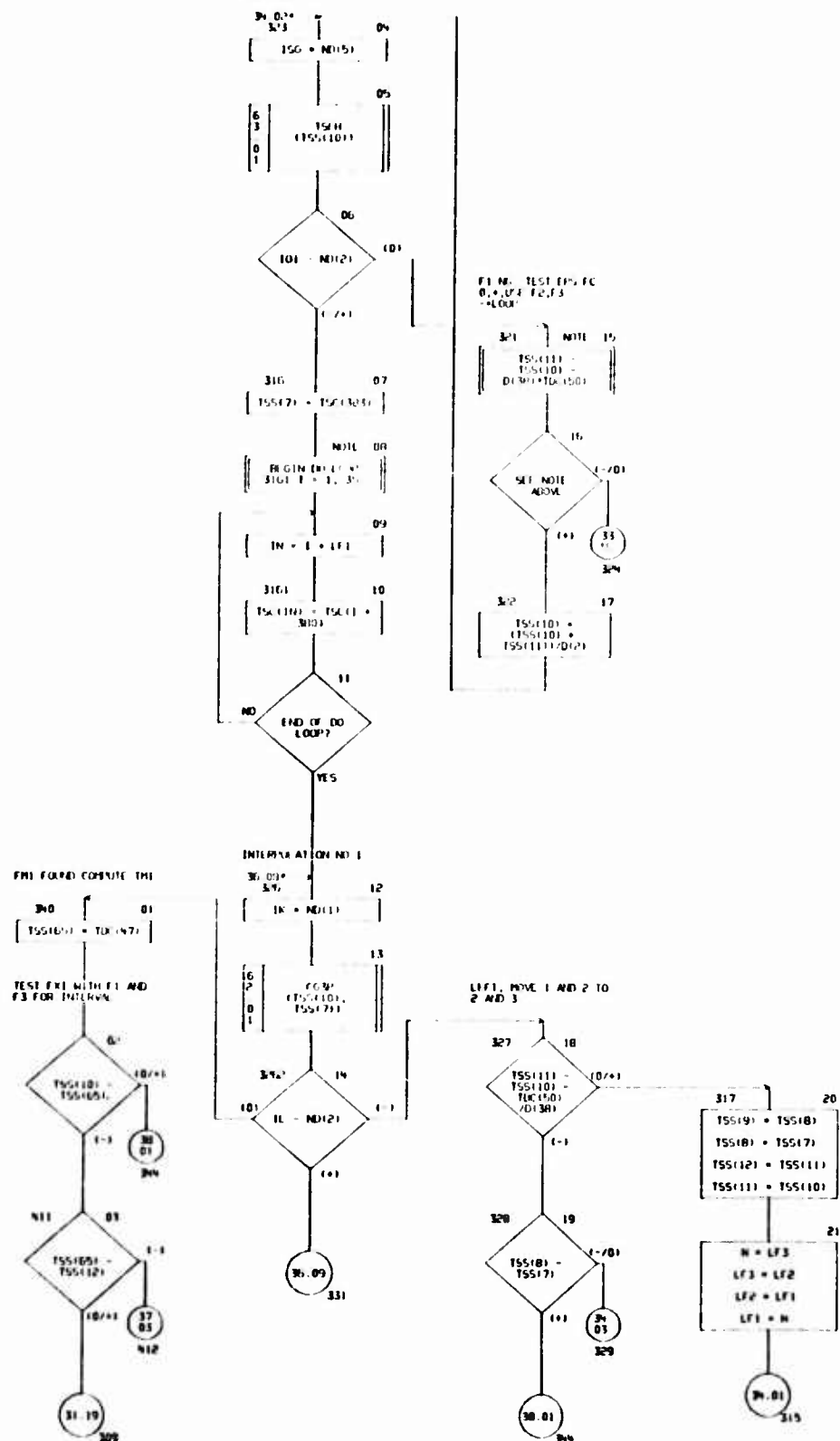
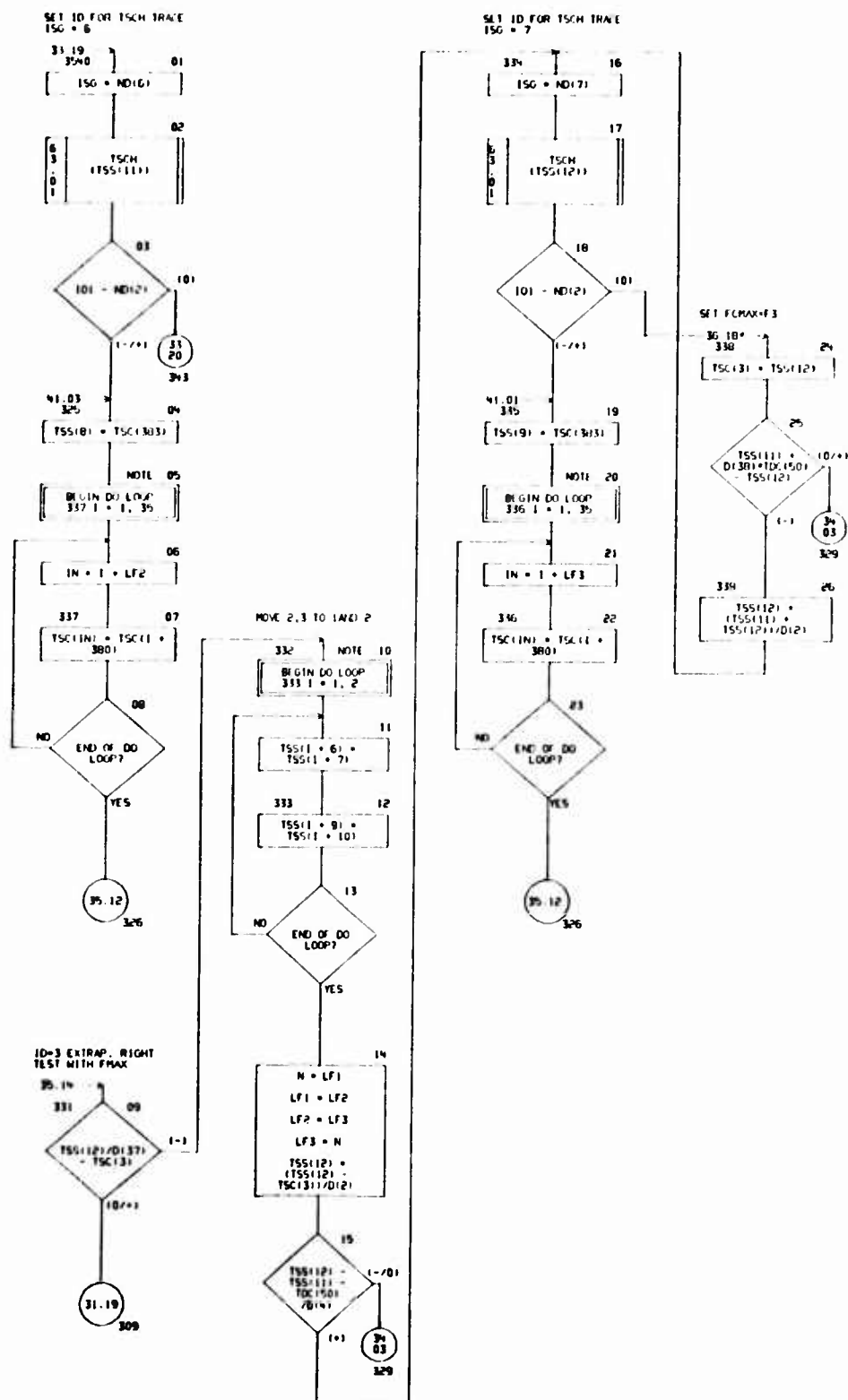


CHART TITLE - SUBROUTINE SFSCHDSTR1



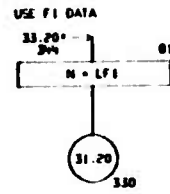
SET ID FOR ISCH TRACE
150 = 0



06/11/79

AUTOFLOW CHART SET - SHEEP HIND AND EYES/NAZE PROBLE - PAGE 38

CHART TITLE - SUBROUTINE SICHIBSTR



1772

CHART TITLE - SUBROUTINE SIGNPOSTS

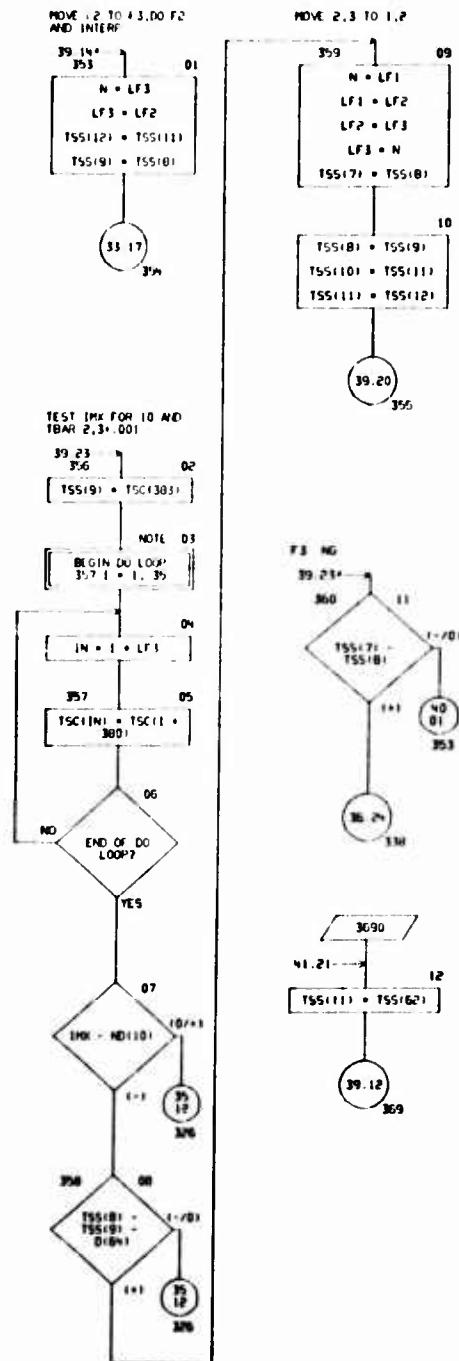


CHART TITLE - SUBROUTINE SFSCHEPSTR

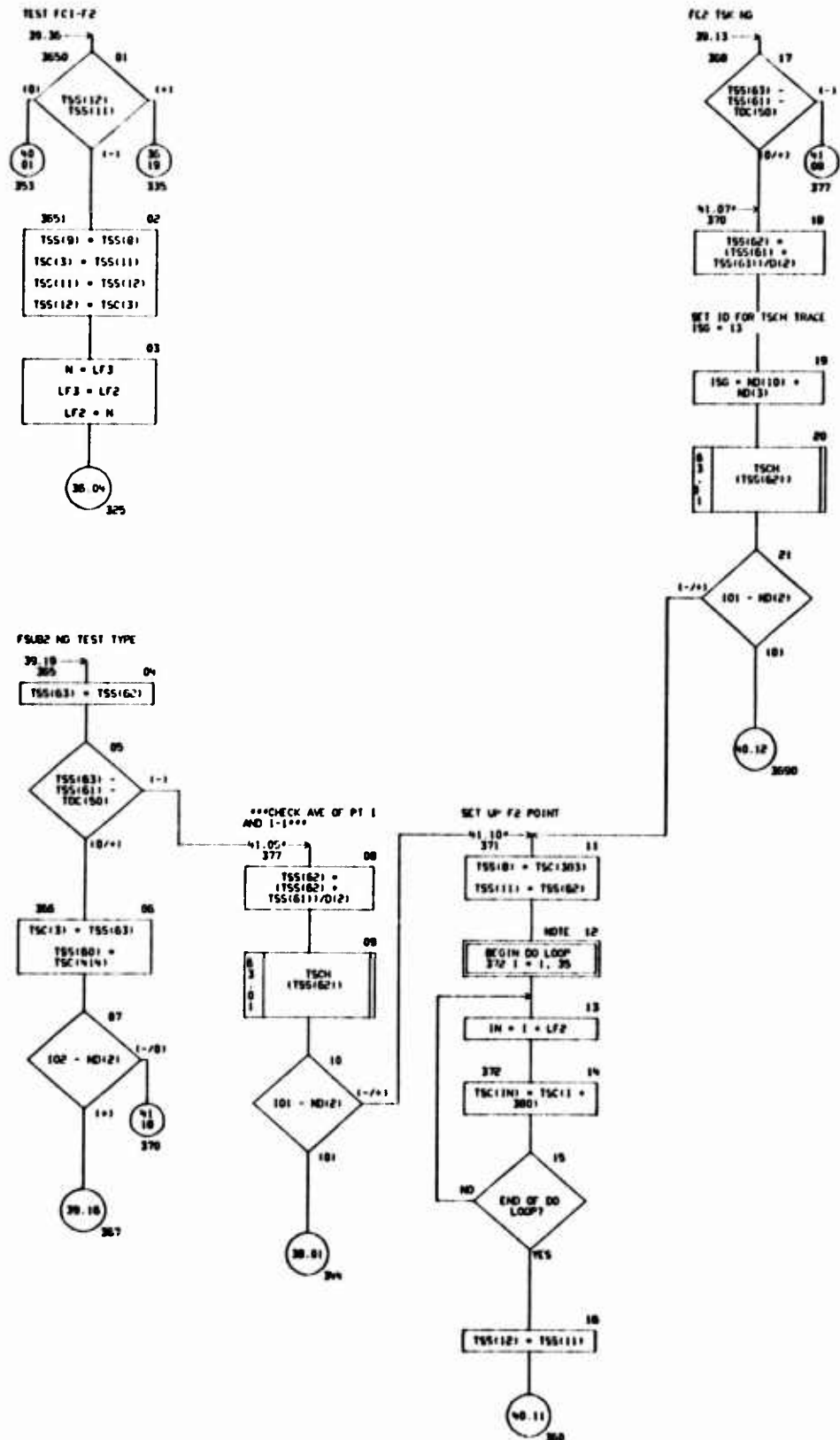
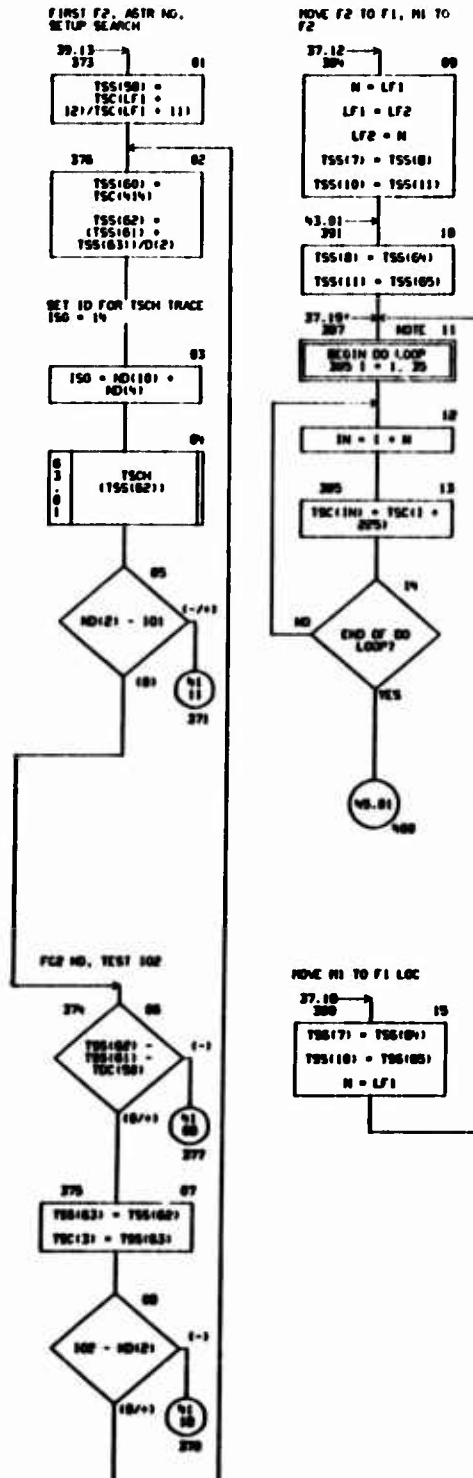


CHART TITLE - SUBROUTINE SFSCHIBSTR



MOVE F2 TO F3, M1 TO
F2

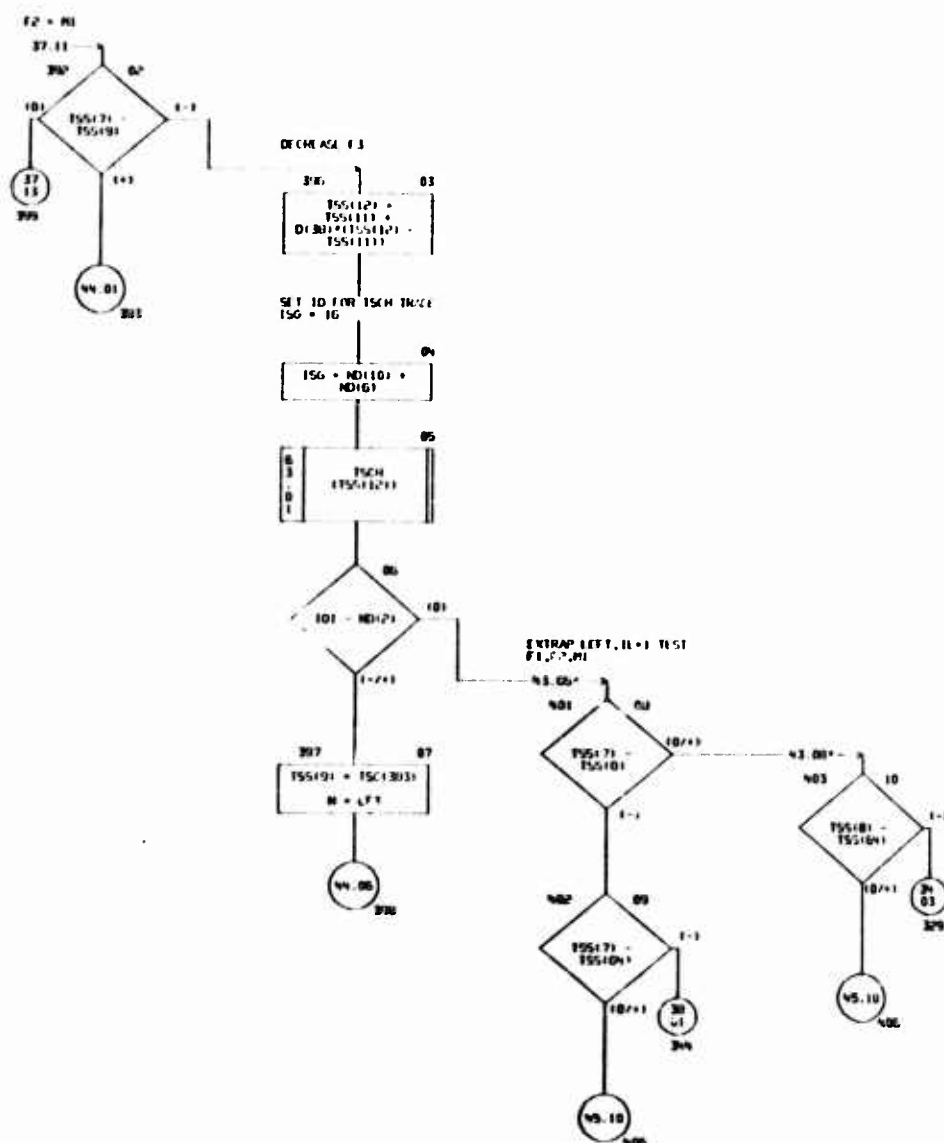
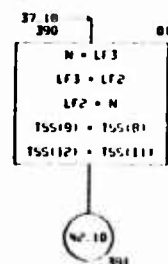


CHART TITLE - SUBROUTINE SF5HIDSTR1

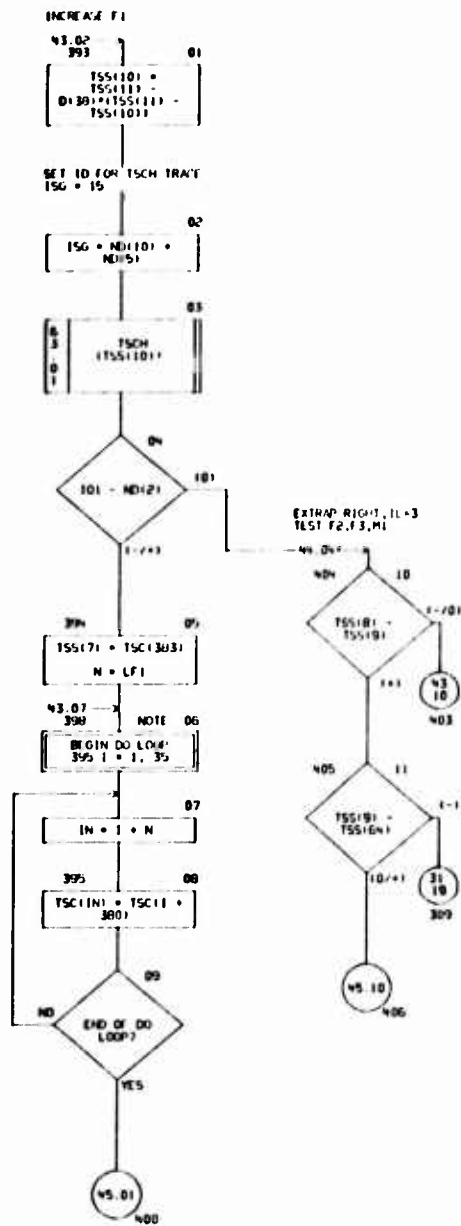


CHART TITLE - SUBROUTINE SF SCH(BSTH)

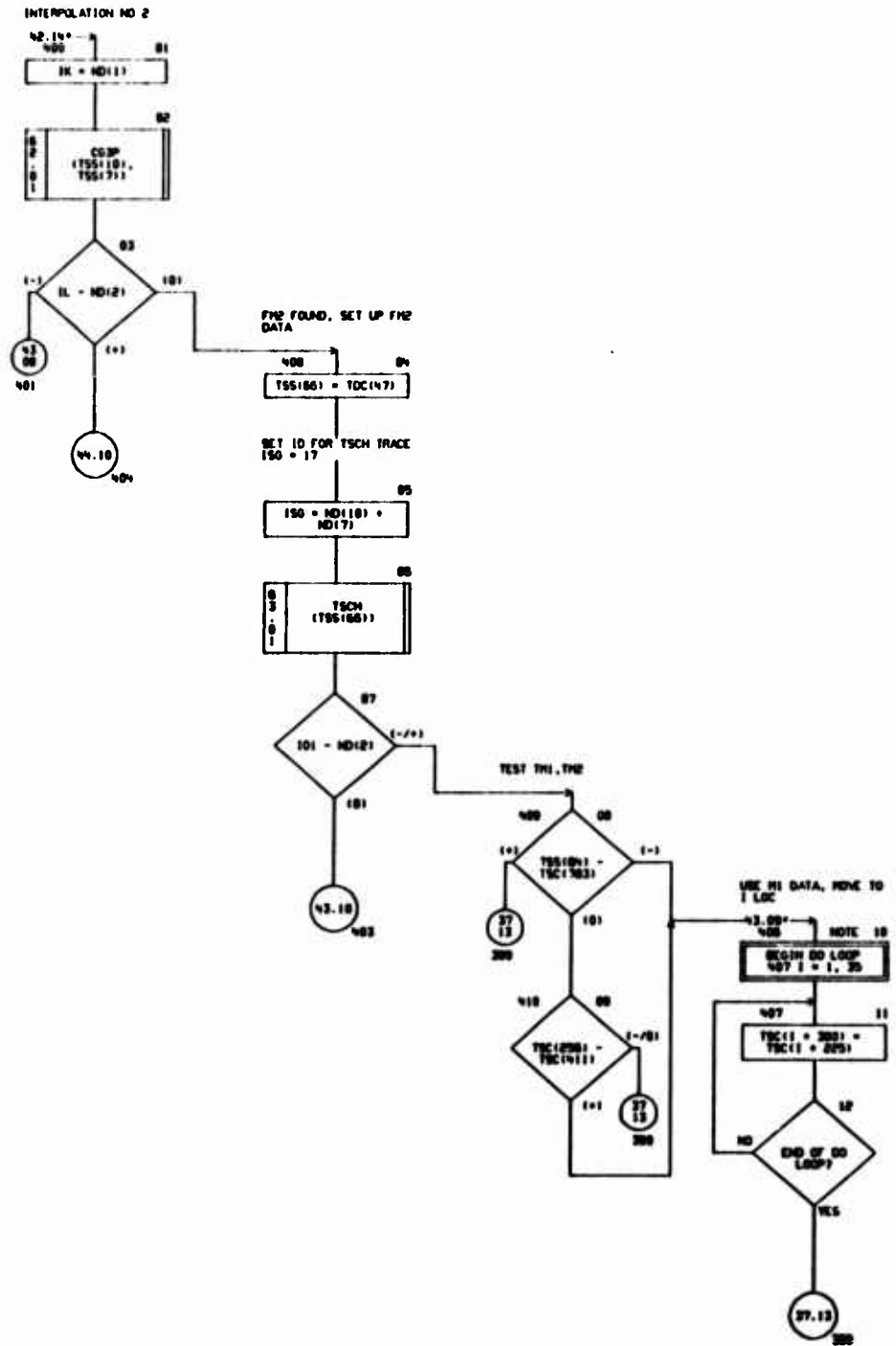


CHART TITLE - NON PROCEDURAL STATEMENTS

```
COMMON T(2060),D(2060),CD(2000),ND(100)
DIMENSION DC(100),
TDC(200),TSC(420),TSS(100),TWT(400),TSEC(1300),
DRIS(4),DROU(11),DROL(11)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(124)),(TSS(1),T(196)),
(DC(1),D(140)),(TWT(1),CD(110)),(TSEC(1),CD(150)),
(DROU(1),D(93)),(DROL(1),D(942)),(DRIS(1),D(1475)),
(STRFN,D(36)),(STRFL,D(370)),(CNSID,D(46)),
(STRSK,D(450)),(STRRO,D(456)),
(STRPN,TDC(64)),(TKKPK,TDC(65)),
(1B,ND(52)),(1WF,ND(51)),(1XC,ND(41)),(1PX,ND(47)),
(1O2,ND(46)),(1O1,ND(45)),(1F3,ND(44)),(1F2,ND(43)),(1F1,ND(42)),
(1L,ND(40)),(1K,ND(39)),(1K1,ND(32)),(1N,ND(30)),(1SG,ND(86)),
(1SEC,ND(55)),(1N,ND(31)),(1,ND(29))
```

CHART TITLE - INTERPOLATION COMMENTS

*****ROUTINE 001*****

INTERPOLATION EVALUATION FOR COMPRESSION STRESS, GIVEN 40/1

101

FCI 0/11 CALC. 95%

*** REVISION
--05-29 07: ADD
PLATE LOGIC ***

*** SETUP CONSTANTS
FOR STR, PL, HC
ANALYSIS ***

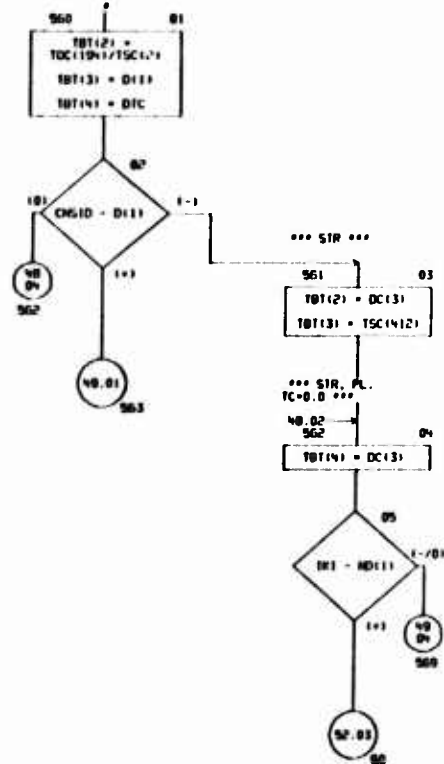
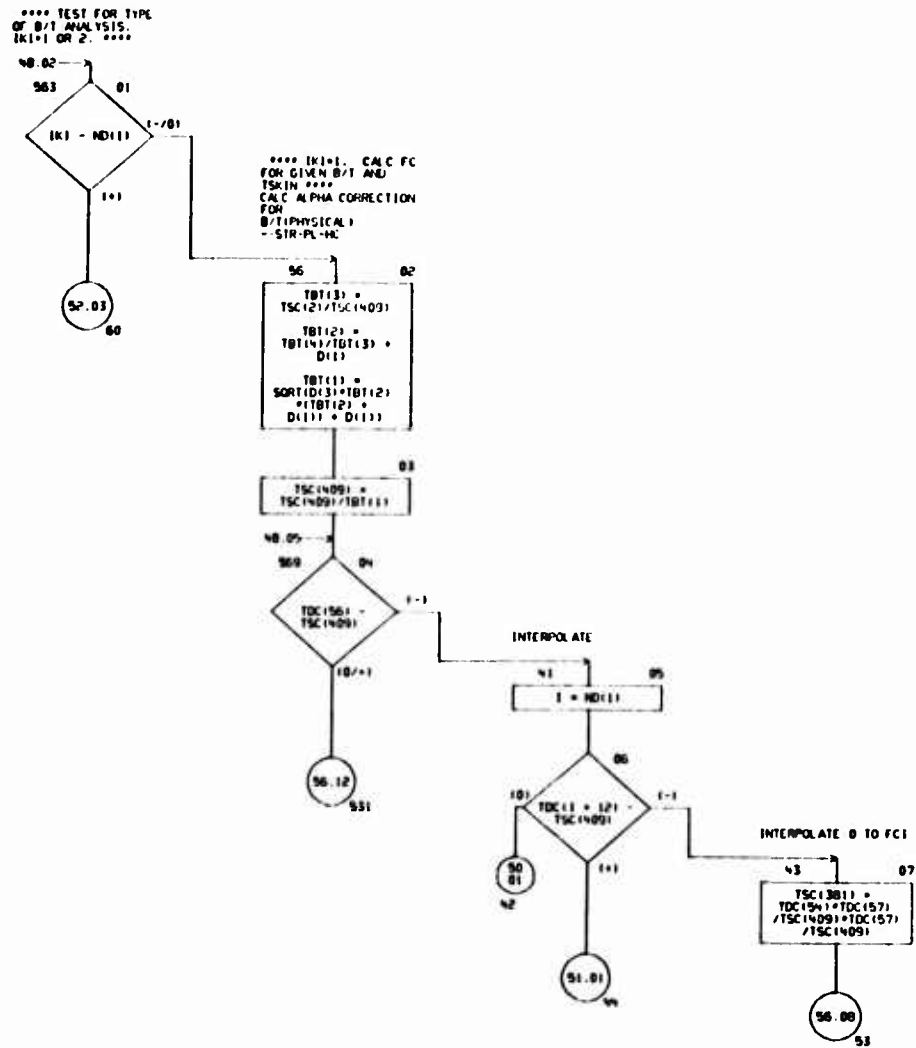


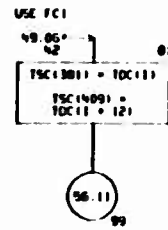
CHART TITLE - SUBROUTINE BOT



05/11/70

AUTOFLOW CHART SET - SHELF WING AND EMPLOYMENT MODULE - PAGE 50

CHART TITLE - SUBROUTINE 001




```

graph TD
    50((50)) --> 5118[51.18]
    5118 --> 51[51]
    51 --> 5119[51.19]
    5119 --> 52((52))
    5119 --> 53((53))
    52 --> 54((54))
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    266 --> 268((268))
    267 --> 269((269))
    268 --> 270((270))
    269 --&
```

```

graph TD
    Start([START]) --> Loop[DO 100 I=1,N]
    Loop --> Calc[TSC(I)=TSC(I)+TSC(I)*I]
    Calc --> TestPoint1[TEST POINT 1]
    TestPoint1 -- NO --> Go1[GO 1]
    TestPoint1 -- YES --> Go2[GO 2]
    Go1 --> Loop
    Go2 --> End([STOP])
  
```

```

graph TD
    61["61  
TSC(141) = TDC(150)/D(12)"] --> 62["62  
DTC(175C(141),  
TSC(14171))"]
    62 --> 63{"63  
D(11) =  
TSC(14171)"}
    63 -- "0/0 NO" --> 64["64  
51 06"]
    63 -- "1-1 YES" --> 610["610  
TSC(1461) =  
TSC(141) +  
TDC(150)"]
    610 --> 611["611  
DTC(175C(1461),  
TSC(1461))"]
    611 --> 612{"612  
D(11) =  
TSC(1461)"}
    612 -- "0/0 NO" --> 613["613  
51 07"]
    612 -- "1-1 YES" --> 614["614  
TSC(14161) =  
TSC(1461)  
TSC(1417) =  
TSC(1461)"]
  
```

```

graph TD
    12((12)) -- 17 --> 14[14  
TSC(15) =  
(TSC(14) +  
TSC(16))/2]
    14 -- 15 --> 16[16  
NOTE  
(TSC(15),  
TSC(16))]
    16 -- 18 --> 18{18  
TSC(16) -  
0?}
    18 -- 19 --> 19((19))
    18 -- 20 --> 20[20  
TSC(17) =  
TSC(15)]
    18 -- 21 --> 21[21  
TSC(17) =  
TSC(16)]
    19 -- 22 --> 22((22))
    20 -- 23 --> 23[23  
TSC(18) =  
TSC(15)]
    21 -- 24 --> 24((24))
    22 -- 25 --> 25((25))
    23 -- 26 --> 26((26))
    24 -- 27 --> 27((27))
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```


CHART TITLE - SUBROUTINE BOT

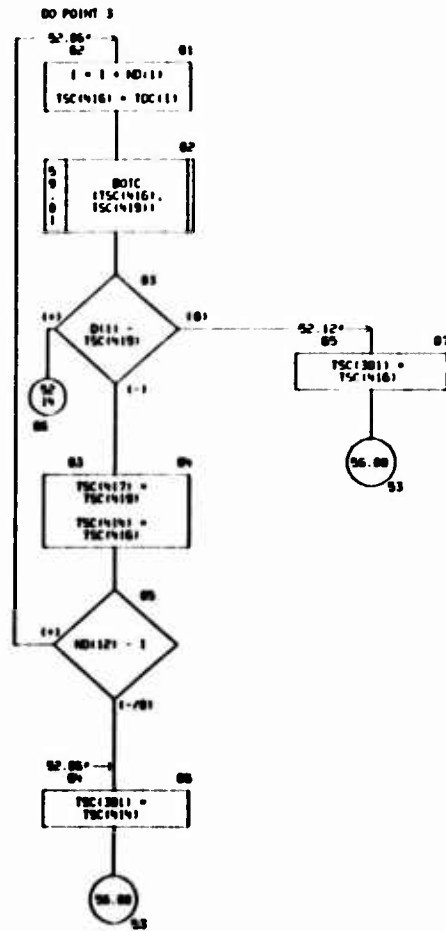


CHART TITLE - SCHEMATIC BOI

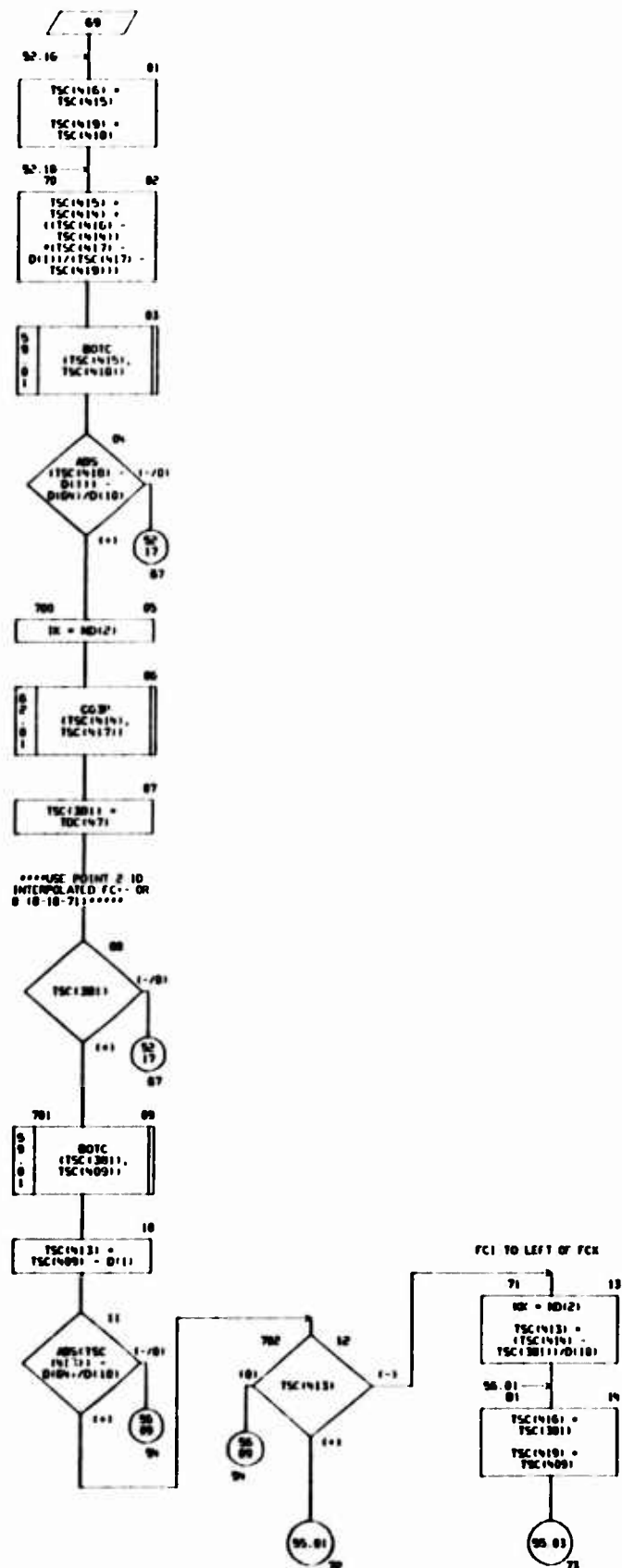


CHART TITLE - SUBROUTINE BOT

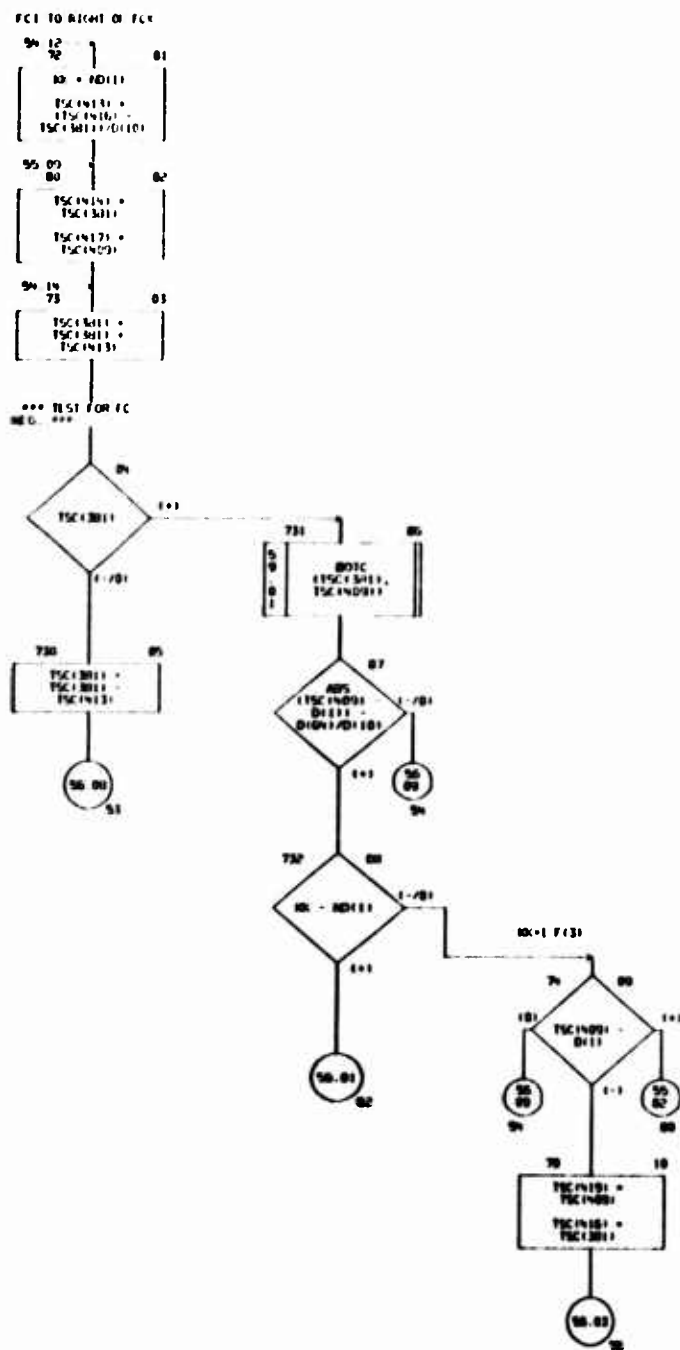


CHART TITLE - SHEEP/FILE 601

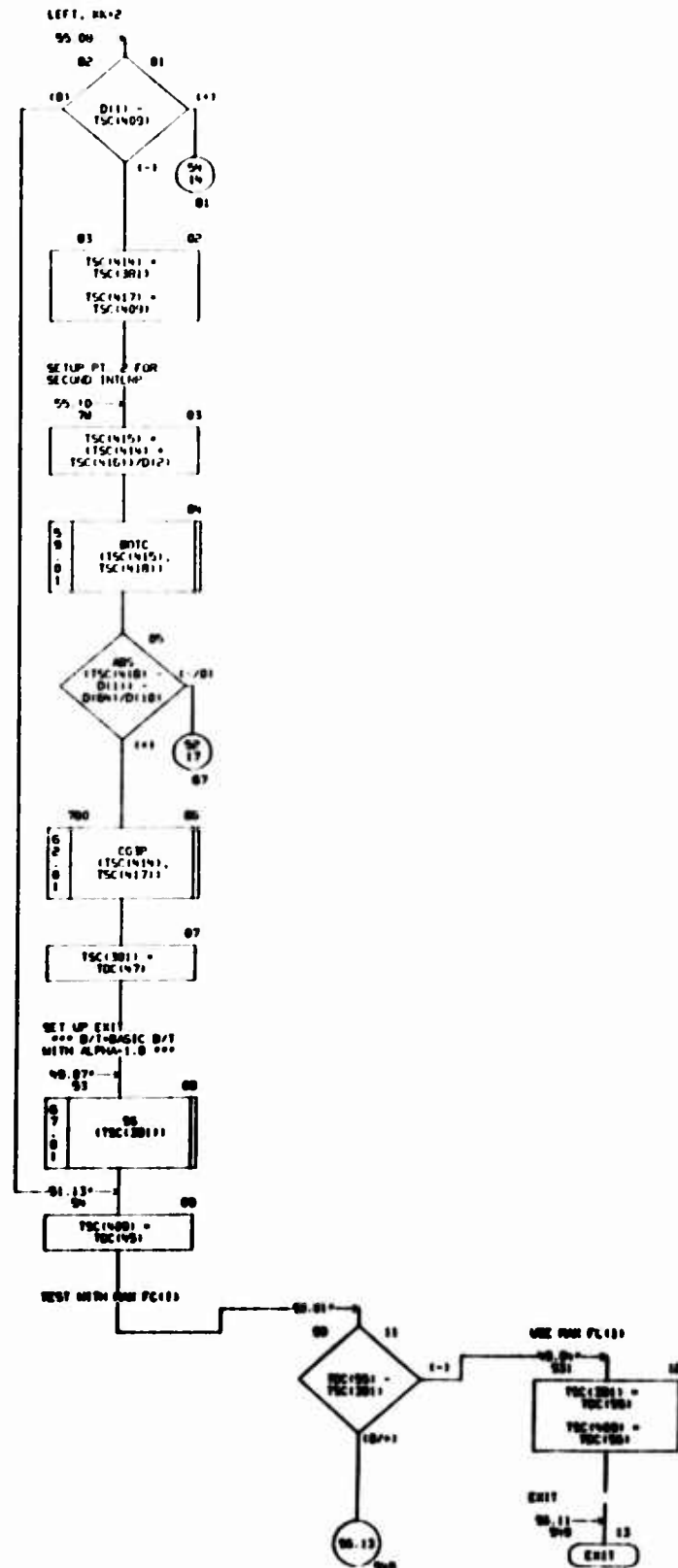


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON T(2050),D(2060),CD(2000),KE(100)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),TMT(4)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(134)),(TSS(1),T(135)),
(TWOPK,T(140)),(TBT(1),T(1317))
EQUIVALENCE (DC(1),D(140)),(CKSK,D(362)),
(OTC,D(462)),(CMSID,D(461))
EQUIVALENCE (IL,ND(40)),(IK,ND(39)),(IK1,ND(32)),(IK2,ND(31)),
(I,ND(30))
```

06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 58

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE (B/C)*****

PLATE BUCKLING (B/T) EVALUATION

CHART TITLE - SUBROUTINE BDTG(SFC,POST)

BDTG

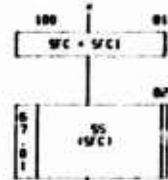
52 05* 4

*****SUBR. TO
DETERMINE RATIO OF
BDT
ACTUAL/REQD *****

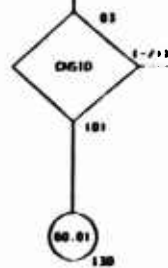
**REVISION 04-00
09 - ADD LOGIC FOR
TESTING 100% BDT

07-27-03 -- NEW
SUBR B/T CALC GIVEN
TC
*** REQD CONSTANTS
SETUP BY SUBR
OUT. ***

*** SETUP FC1, EVAL.
95 FOR B/T BASIC ***



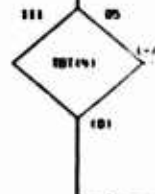
*** TEST FOR STR
CONST. ***



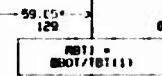
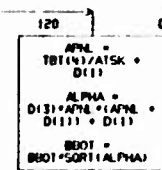
*** CALC B/T
PHYSICAL ***



*** TEST FOR CONST
-- TBT11 = SCORE FOR
HP. 8 FOR STR. PL. **



** CALC B/T
ALLOWABLE --
ALPHA = F(TC, TSK) **



***TEST MAGNITUDE
OF RATIO***

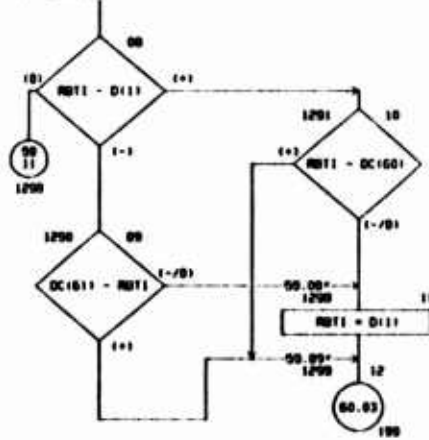
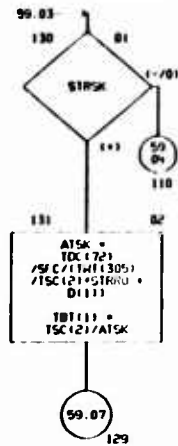


CHART TITLE - SUBROUTINE BOTCSFC1,ABT11

**** STR - DEFINE
MIN STR TRAD. TEST
FOR CONSTANT TSK ****



EXIT ROT1 =
RATIO OF ALLOWED/T1
TO PHYSICAL B/T **

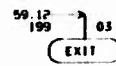


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON T(2060),D(2060),CD(2000),AD(100)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),TWT(400),TSEC(300),
          TBT(4)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(154)),(TSS(1),T(196)),
          (SFC,T(1307)),(BGT,T(1305)),(TBT(1),T(1317))
EQUIVALENCE (DC(1),D(140)),(STRPW,D(37)),(CN510,D(46)),
          (STRRO,D(456)),(STRSK,D(455))
EQUIVALENCE (TSEC(1),CD(150)),(TWT(1),CD(110))
```

06/11/74

AUTOFLOW CHART SET - SHEEP WINDS AND EMERGENCY MODES - PAGE 02

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE TSCN*****

SEARCH LEVEL 3 CONTROL - OPTIMUM T/S/INI, A STRI

CHART TITLE - SUBROUTINE TSCN(SFC)

TSCN

31.11.74

T-SATN SUBROUTINE

***REVISION 11-29-72
 SETUP AND CONTROL FOR
 TRACKING WHEEL STATION
 DATA. ROUTINE HAS BEEN
 CALLED FROM THIS
 SUBROUTINE. ID
 IS PRINTED FROM PRIOR

WORK 1-SATN,
 2-TM (0.1),
 3-TSCN(0.01)
 RETURN ID, 15KAD 1-FC
 OK, 2-FC 15, 3-
 1-TEMPERATURE OK
 15-10 1-TEMPERATURE
 2-ASTR 15, 3-1 LESS
 THAN 15KAD

ID FROM SUBROUTINE
 1-OK, 2-1-15, 3-1
 NG, 4-ASTR 15

GIVEN FC, BSTR, TMIN,
 TW

***SAVE DATA
 TSEC(221), 2001,
 TMT(305), 3077, TDC(1194)
 ,IMR, 181*

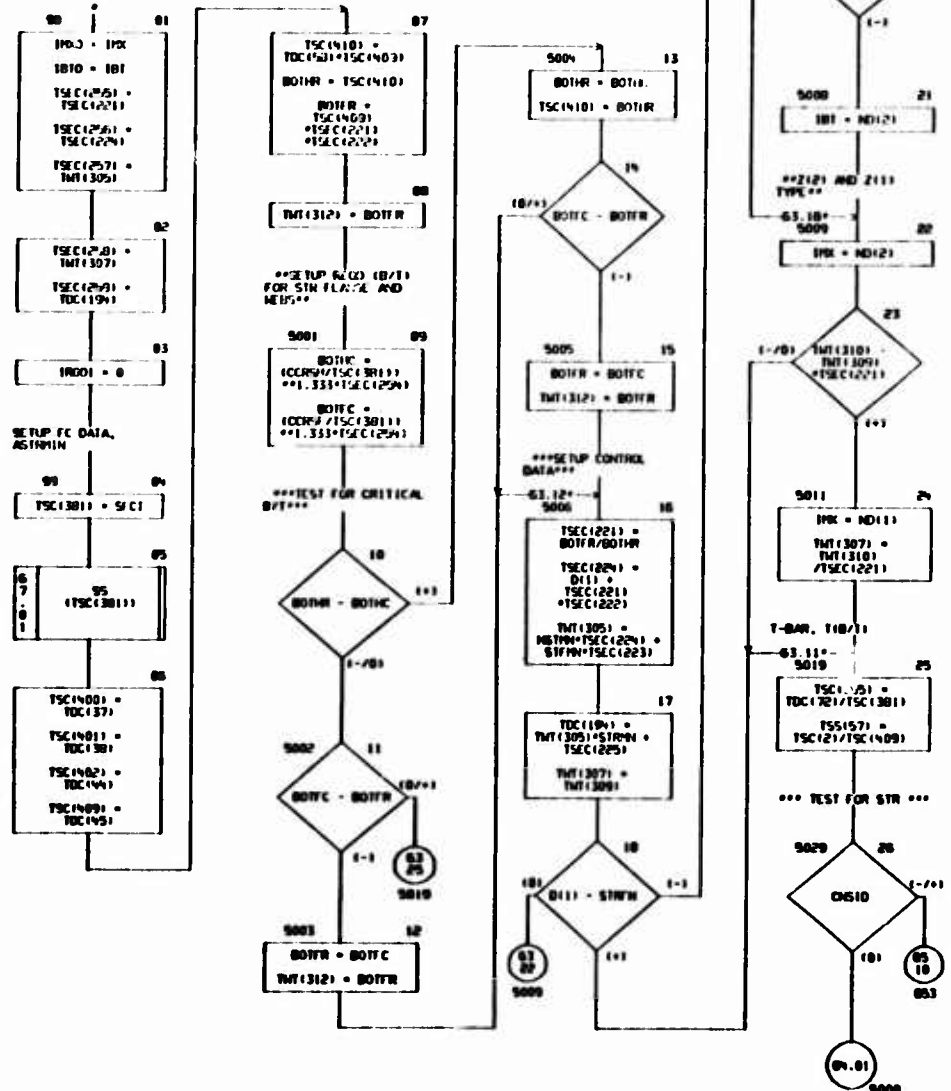


CHART TITLE - SUBROUTINE TSCN1SEC11

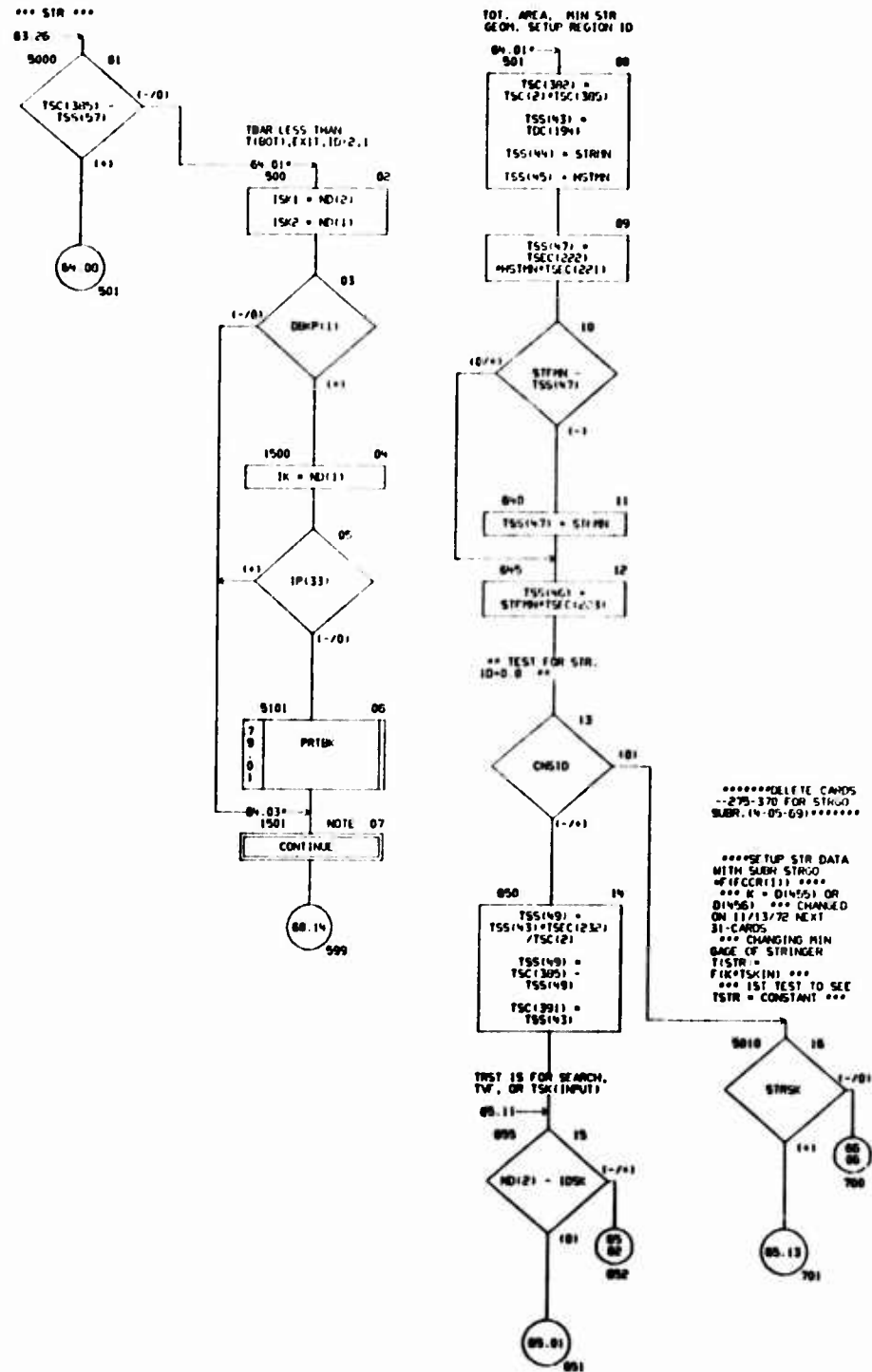


CHART TITLE - SUBROUTINE TSCMIS(11)

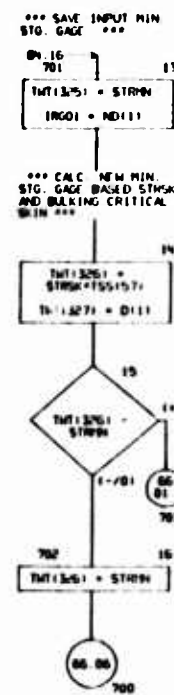
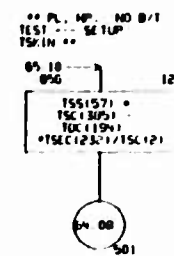
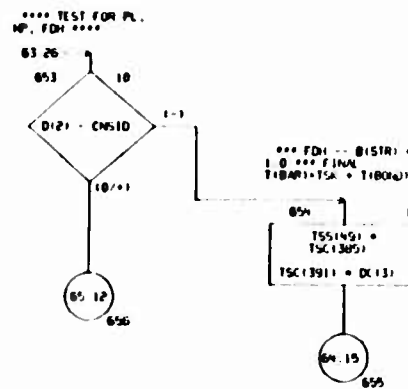
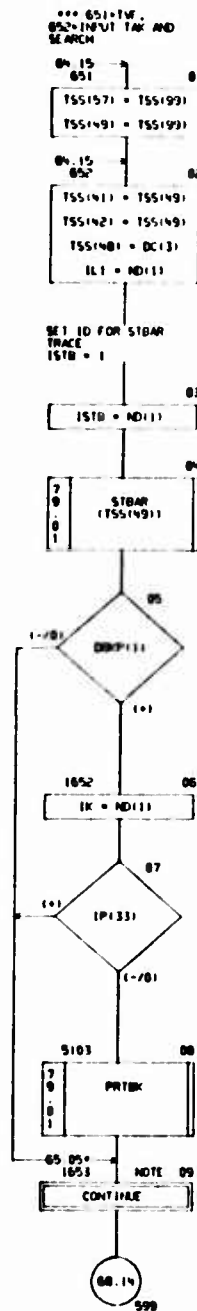


CHART TITLE - SHEP-DUTY (SCHISMCI)

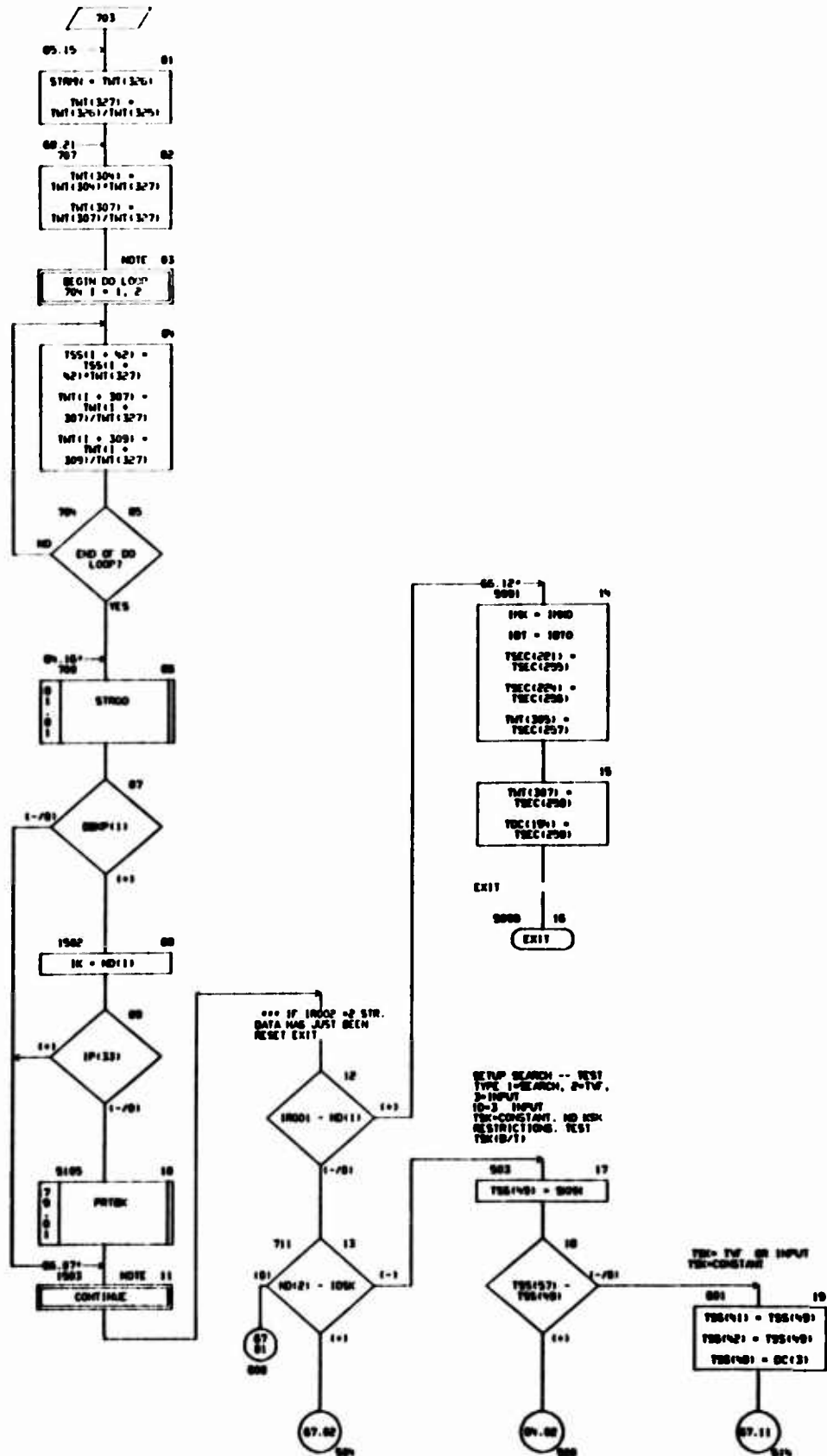


CHART TITLE - SUBROUTINE TSC015C01

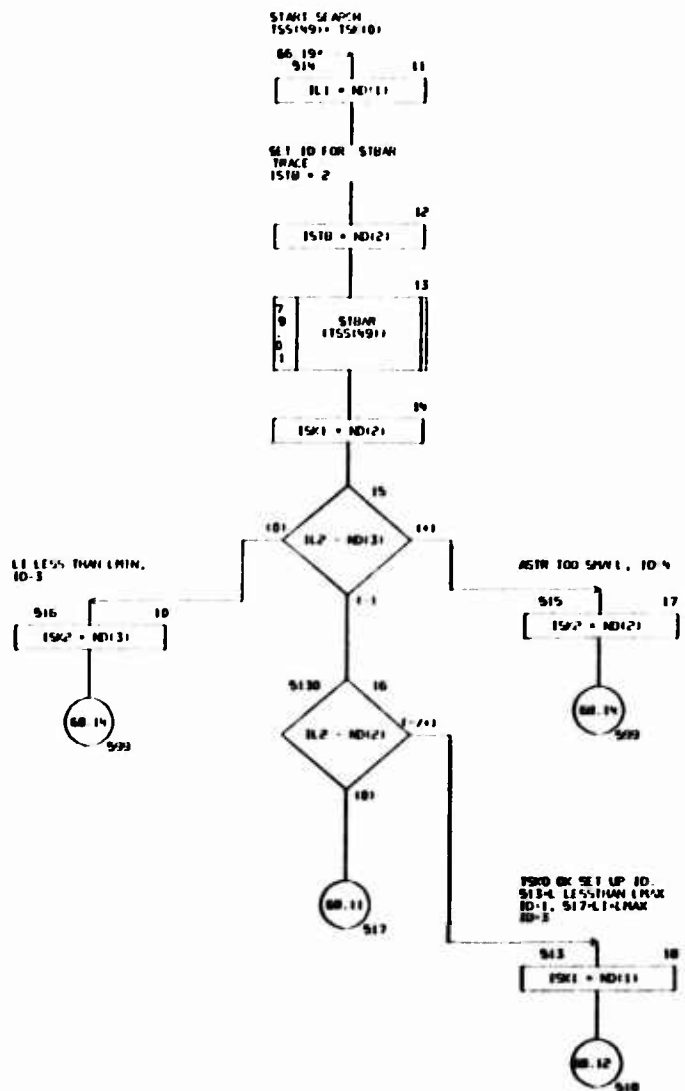
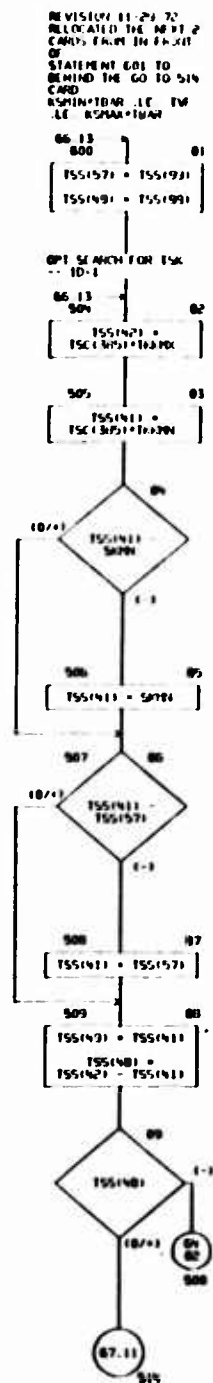


CHART TITLE - SUBROUTINE TSCN15C11

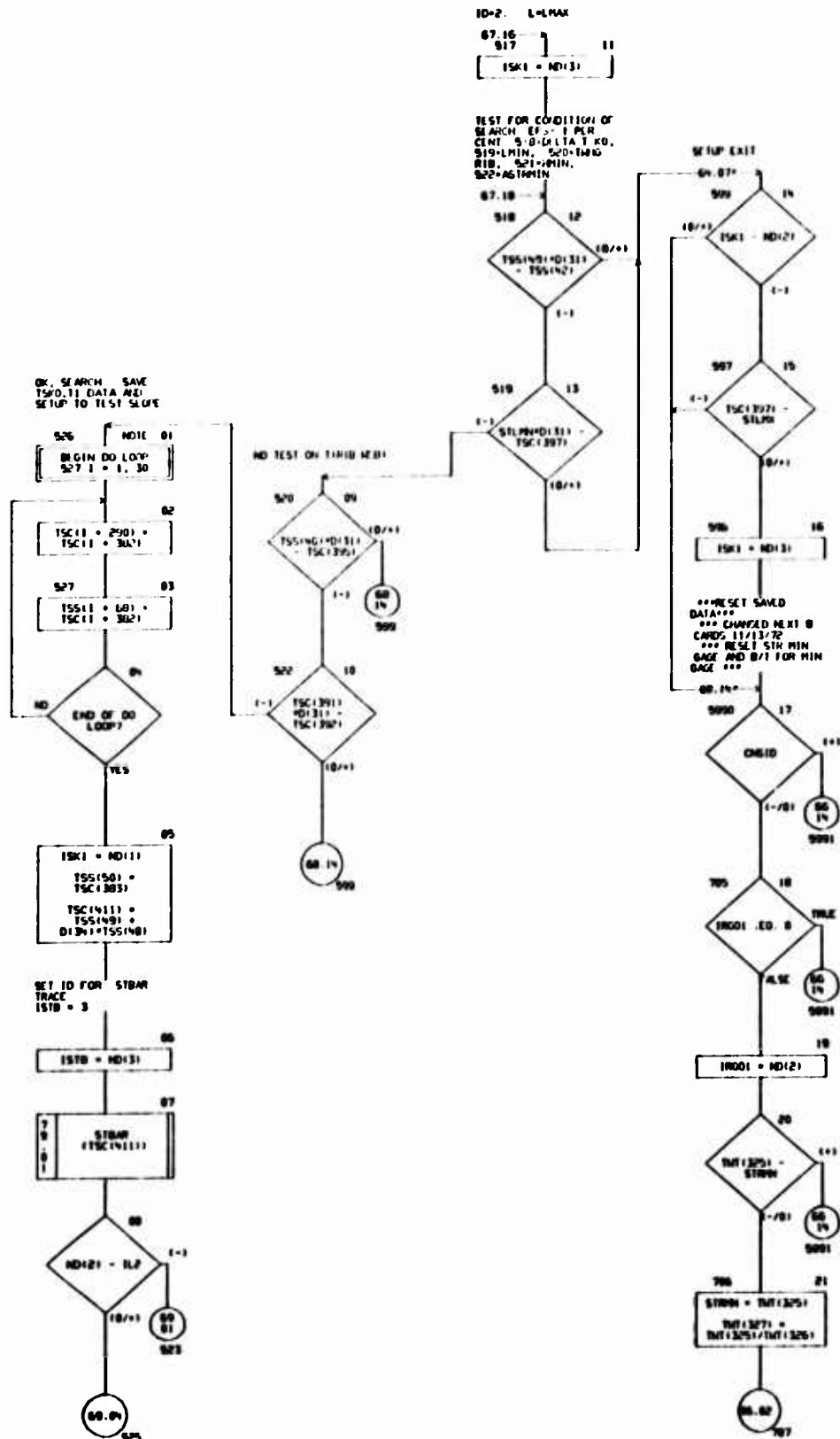
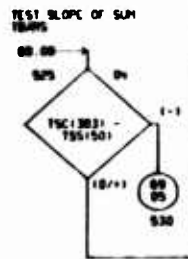
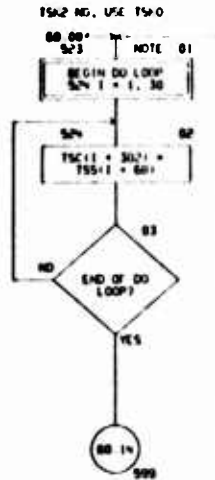
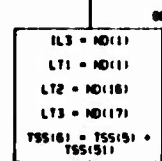
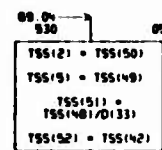
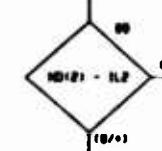
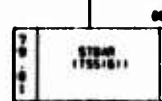
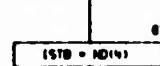


CHART TITLE - SUBROUTINE TSCN(SIC)

TSCN2 LESS THAN
TSCN0, SEARCH TSCN0 TO
TSCNMAXSET ID FOR STBAR
TRACE

T3 TOO LARGE, TMAX=T3

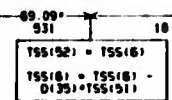
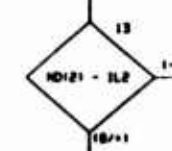
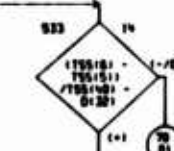
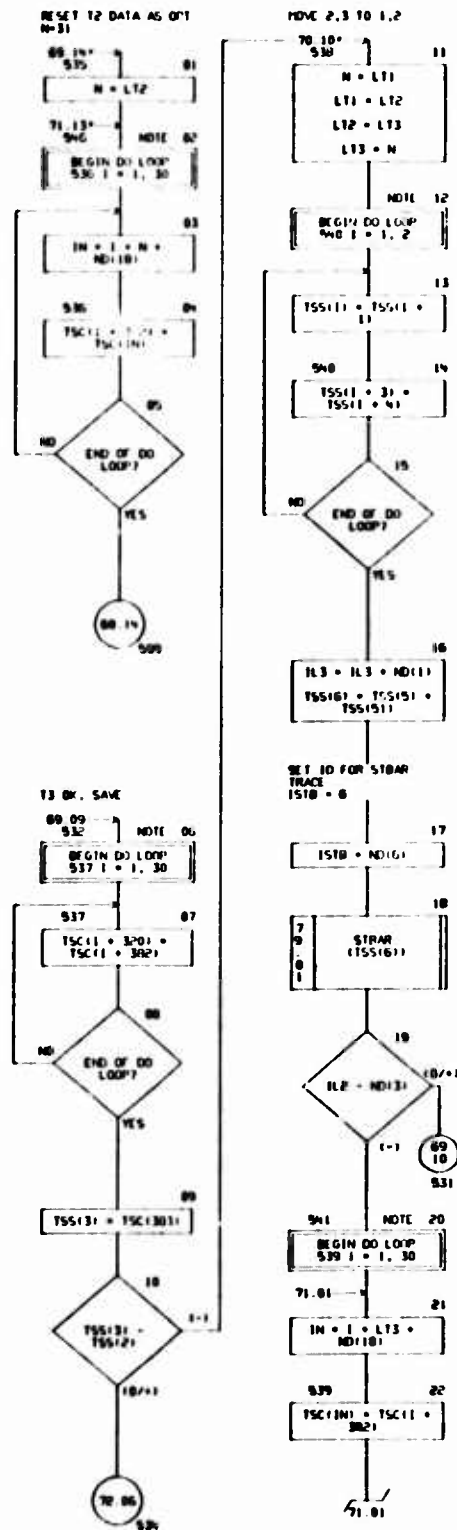
SET ID FOR STBAR
TRACE**END SEARCH ON TEST
WITH D(32)=05 VS
P(13-2)/DEL(1)**
**DEL(1)=TSS(40)
=TSS(40)
TSS(40)/D(33)**

CHART TITLE - SUBROUTINE TSCMISFC11



```

graph TD
    01{01  
END OF DO LOOP?} -- YES --> 20_21((20 21))
    01 -- NO --> 02[02  
TSS(1) = TSC(10)]
    02 --> 03[03  
*** TEST DIFF OF  
T-BAYS ***  
TSS(55) =  
TSS(2) - TSS(1)]
    03 --> 04{04  
TSS(55)}
    04 -- 1-70 --> 05[05  
0164/D1101 -  
TSS(55)]
    05 -- 10/11 --> 06{06  
TSS(55) -  
D164}
    06 -- 1-70 --> 07[07  
TSS(55) =  
TSS(2) -  
TSS(1)/TSS(55)]
    07 --> 08{08  
TSS(55) -  
D1101}
    08 -- 10/11 --> 09{09  
0121 -  
TSS(55)}
    09 -- 1-70 --> 10[10  
TSS(1) = TSS(2)]
    10 --> 11[11  
TSS(1) = TSS(2)]
    11 --> 12{12  
IL - ND(2)}
    12 -- 1-70 --> 13[13  
N = L73]
    12 -- 10/11 --> 14[14  
TSS(1) = TSS(2)]
    14 --> 15[15  
TSS(1) = TSS(2)]
    15 --> 16{16  
TSS(1) -  
TSS(55)}
    16 -- 1-70 --> 17{17  
TSS(1) -  
TSS(2)}
    17 -- 1-70 --> 18[18  
TSS(1) = TSS(2)]
    18 --> 19[19  
TSS(1) = TSS(2)]
    19 --> 20[20  
TSS(1) = TSS(2)]
    20 --> 21[21  
TSS(1) = TSS(2)]
    21 --> 22[22  
TSS(1) = TSS(2)]
    22 --> 23[23  
TSS(1) = TSS(2)]
    23 --> 24[24  
TSS(1) = TSS(2)]
    24 --> 25[25  
TSS(1) = TSS(2)]
    25 --> 26[26  
TSS(1) = TSS(2)]
    26 --> 27[27  
TSS(1) = TSS(2)]
    27 --> 28[28  
TSS(1) = TSS(2)]
    28 --> 29[29  
TSS(1) = TSS(2)]
    29 --> 30[30  
TSS(1) = TSS(2)]
    30 --> 31[31  
TSS(1) = TSS(2)]
    31 --> 32[32  
TSS(1) = TSS(2)]
    32 --> 33[33  
TSS(1) = TSS(2)]
    33 --> 34[34  
TSS(1) = TSS(2)]
    34 --> 35[35  
TSS(1) = TSS(2)]
    35 --> 36[36  
TSS(1) = TSS(2)]
    36 --> 37[37  
TSS(1) = TSS(2)]
    37 --> 38[38  
TSS(1) = TSS(2)]
    38 --> 39[39  
TSS(1) = TSS(2)]
    39 --> 40[40  
TSS(1) = TSS(2)]
    40 --> 41[41  
TSS(1) = TSS(2)]
    41 --> 42[42  
TSS(1) = TSS(2)]
    42 --> 43[43  
TSS(1) = TSS(2)]
    43 --> 44[44  
TSS(1) = TSS(2)]
    44 --> 45[45  
TSS(1) = TSS(2)]
    45 --> 46[46  
TSS(1) = TSS(2)]
    46 --> 47[47  
TSS(1) = TSS(2)]
    47 --> 48[48  
TSS(1) = TSS(2)]
    48 --> 49[49  
TSS(1) = TSS(2)]
    49 --> 50[50  
TSS(1) = TSS(2)]
    50 --> 51[51  
TSS(1) = TSS(2)]
    51 --> 52[52  
TSS(1) = TSS(2)]
    52 --> 53[53  
TSS(1) = TSS(2)]
    53 --> 54[54  
TSS(1) = TSS(2)]
    54 --> 55[55  
TSS(1) = TSS(2)]
    55 --> 56[56  
TSS(1) = TSS(2)]
    56 --> 57[57  
TSS(1) = TSS(2)]
    57 --> 58[58  
TSS(1) = TSS(2)]
    58 --> 59[59  
TSS(1) = TSS(2)]
    59 --> 60[60  
TSS(1) = TSS(2)]
    60 --> 61[61  
TSS(1) = TSS(2)]
    61 --> 62[62  
TSS(1) = TSS(2)]
    62 --> 63[63  
TSS(1) = TSS(2)]
    63 --> 64[64  
TSS(1) = TSS(2)]
    64 --> 65[65  
TSS(1) = TSS(2)]
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TSS(1) = TSS(2)]
    66 --> 67[67  
TSS(1) = TSS(2)]
    67 --> 68[68  
TSS(1) = TSS(2)]
    68 --> 69[69  
TSS(1) = TSS(2)]
    69 --> 70[70  
TSS(1) = TSS(2)]
    70 --> 71[71  
TSS(1) = TSS(2)]
    71 --> 72[72  
TSS(1) = TSS(2)]
    72 --> 73[73  
TSS(1) = TSS(2)]
    73 --> 74[74  
TSS(1) = TSS(2)]
    74 --> 75[75  
TSS(1) = TSS(2)]
    75 --> 76[76  
TSS(1) = TSS(2)]
    76 --> 77[77  
TSS(1) = TSS(2)]
    77 --> 78[78  
TSS(1) = TSS(2)]
    78 --> 79[79  
TSS(1) = TSS(2)]
    79 --> 80[80  
TSS(1) = TSS(2)]
    80 --> 81[81  
TSS(1) = TSS(2)]
    81 --> 82[82  
TSS(1) = TSS(2)]
    82 --> 83[83  
TSS(1) = TSS(2)]
    83 --> 84[84  
TSS(1) = TSS(2)]
    84 --> 85[85  
TSS(1) = TSS(2)]
    85 --> 86[86  
TSS(1) = TSS(2)]
    86 --> 87[87  
TSS(1) = TSS(2)]
    87 --> 88[88  
TSS(1) = TSS(2)]
    88 --> 89[89  
TSS(1) = TSS(2)]
    89 --> 90[90  
TSS(1) = TSS(2)]
    90 --> 91[91  
TSS(1) = TSS(2)]
    91 --> 92[92  
TSS(1) = TSS(2)]
    92 --> 93[93  
TSS(1) = TSS(2)]
    93 --> 94[94  
TSS(1) = TSS(2)]
    94 --> 95[95  
TSS(1) = TSS(2)]
    95 --> 96[96  
TSS(1) = TSS(2)]
    96 --> 97[97  
TSS(1) = TSS(2)]
    97 --> 98[98  
TSS(1) = TSS(2)]
    98 --> 99[99  
TSS(1) = TSS(2)]
    99 --> 100[100  
TSS(1) = TSS(2)]
    100 --> 101[101  
TSS(1) = TSS(2)]
    101 --> 102[102  
TSS(1) = TSS(2)]
    102 --> 103[103  
TSS(1) = TSS(2)]
    103 --> 104[104  
TSS(1) = TSS(2)]
    104 --> 105[105  
TSS(1) = TSS(2)]
    105 --> 106[106  
TSS(1) = TSS(2)]
    106 --> 107[107  
TSS(1) = TSS(2)]
    107 --> 108[108  
TSS(1) = TSS(2)]
    108 --> 109[109  
TSS(1) = TSS(2)]
    109 --> 110[110  
TSS(1) = TSS(2)]
    110 --> 111[111  
TSS(1) = TSS(2)]
    111 --> 112[112  
TSS(1) = TSS(2)]
    112 --> 113[113  
TSS(1) = TSS(2)]
    113 --> 114[114  
TSS(1) = TSS(2)]
    114 --> 115[115  
TSS(1) = TSS(2)]
    115 --> 116[116  
TSS(1) = TSS(2)]
    116 --> 117[117  
TSS(1) = TSS(2)]
    117 --> 118[118  
TSS(1) = TSS(2)]
    118 --> 119[119  
TSS(1) = TSS(2)]
    119 --> 120[120  
TSS(1) = TSS(2)]
    120 --> 121[121  
TSS(1) = TSS(2)]
    121 --> 122[122  
TSS(1) = TSS(2)]
    122 --> 123[123  
TSS(1) = TSS(2)]
    123 --> 124[124  
TSS(1) = TSS(2)]
    124 --> 125[125  
TSS(1) = TSS(2)]
    125 --> 126[126  
TSS(1) = TSS(2)]
    126 --> 127[127  
TSS(1) = TSS(2)]
    127 --> 128[128  
TSS(1) = TSS(2)]
    128 --> 129[129  
TSS(1) = TSS(2)]
    129 --> 130[130  
TSS(1) = TSS(2)]
    130 --> 131[131  
TSS(1) = TSS(2)]
    131 --> 132[132  
TSS(1) = TSS(2)]
    132 --> 133[133  
TSS(1) = TSS(2)]
    133 --> 134[134  
TSS(1) = TSS(2)]
    134 -->
```

BL-3, NIGHT

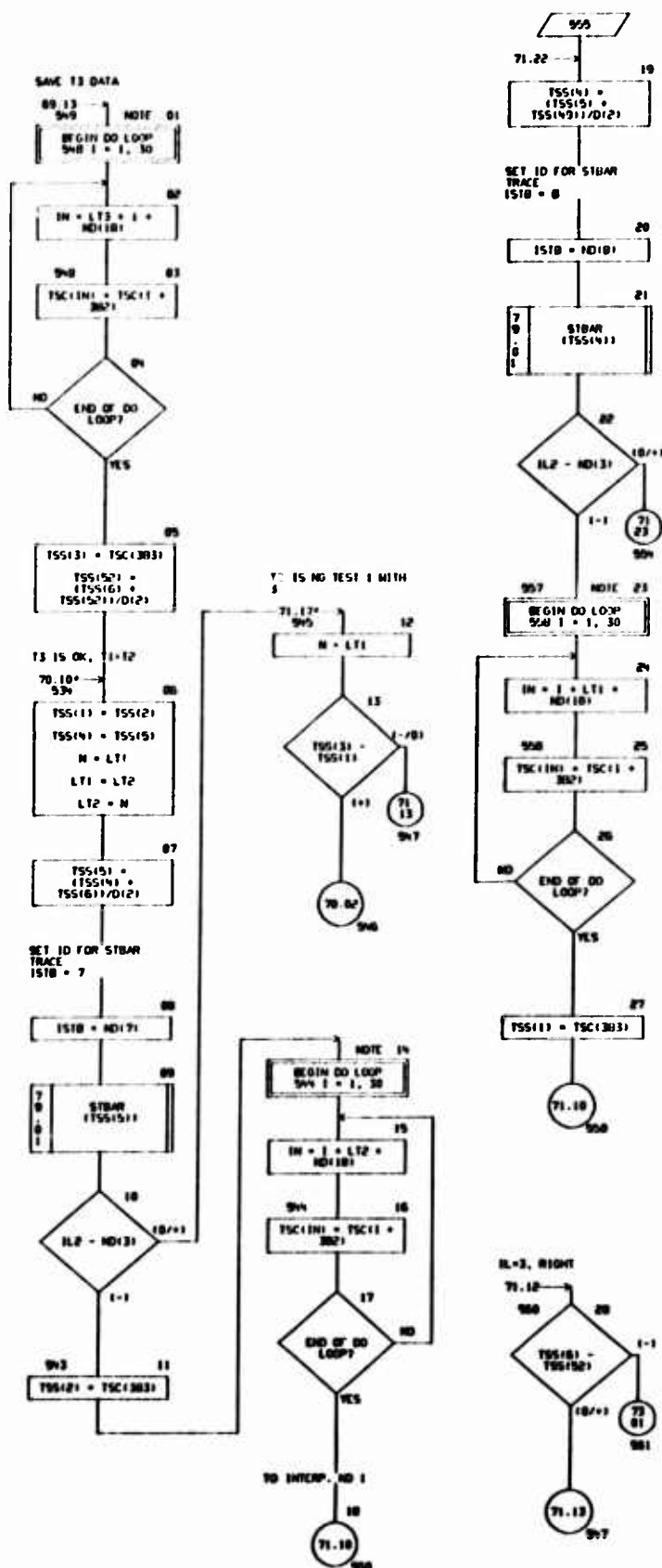


CHART TITLE - SUBROUTINE TSCM5FC1)

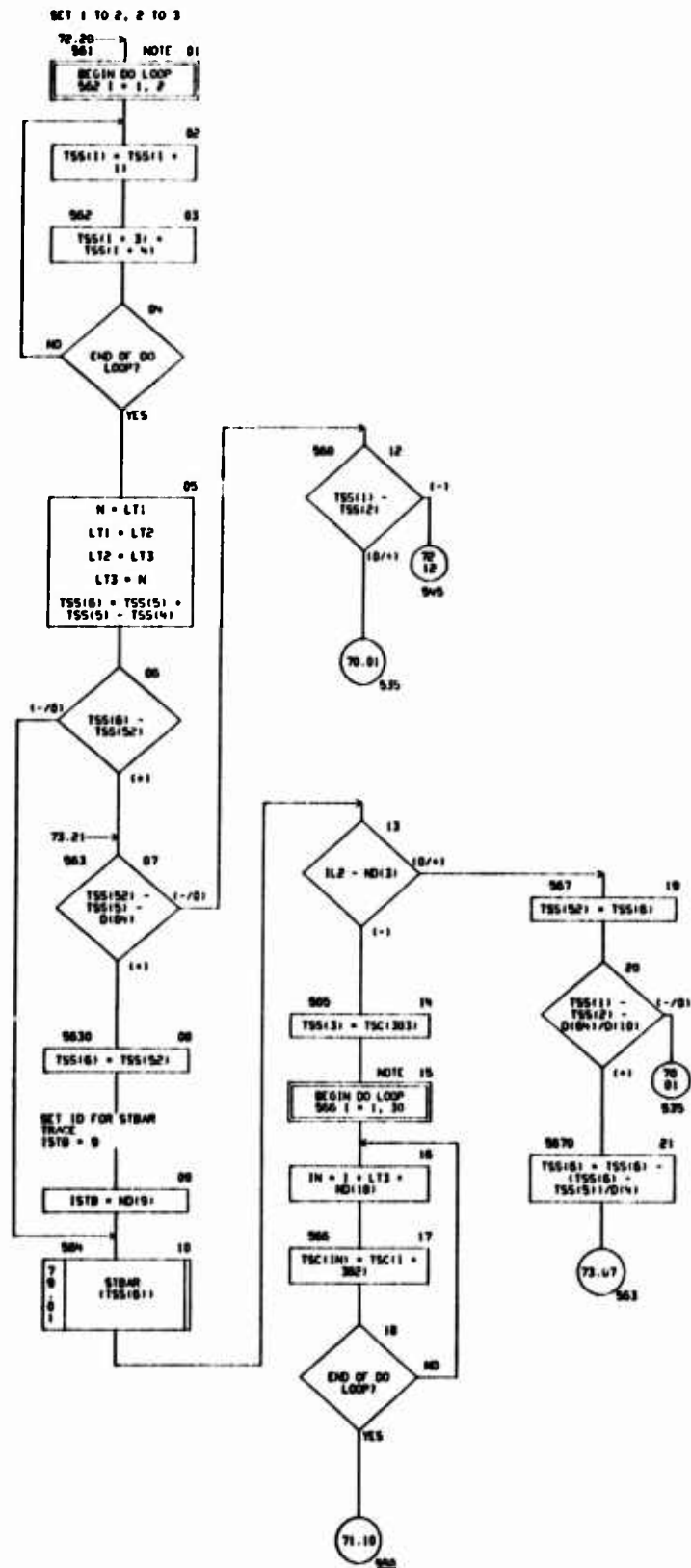


CHART TITLE - SUBROUTINE TSCN(SFC1)

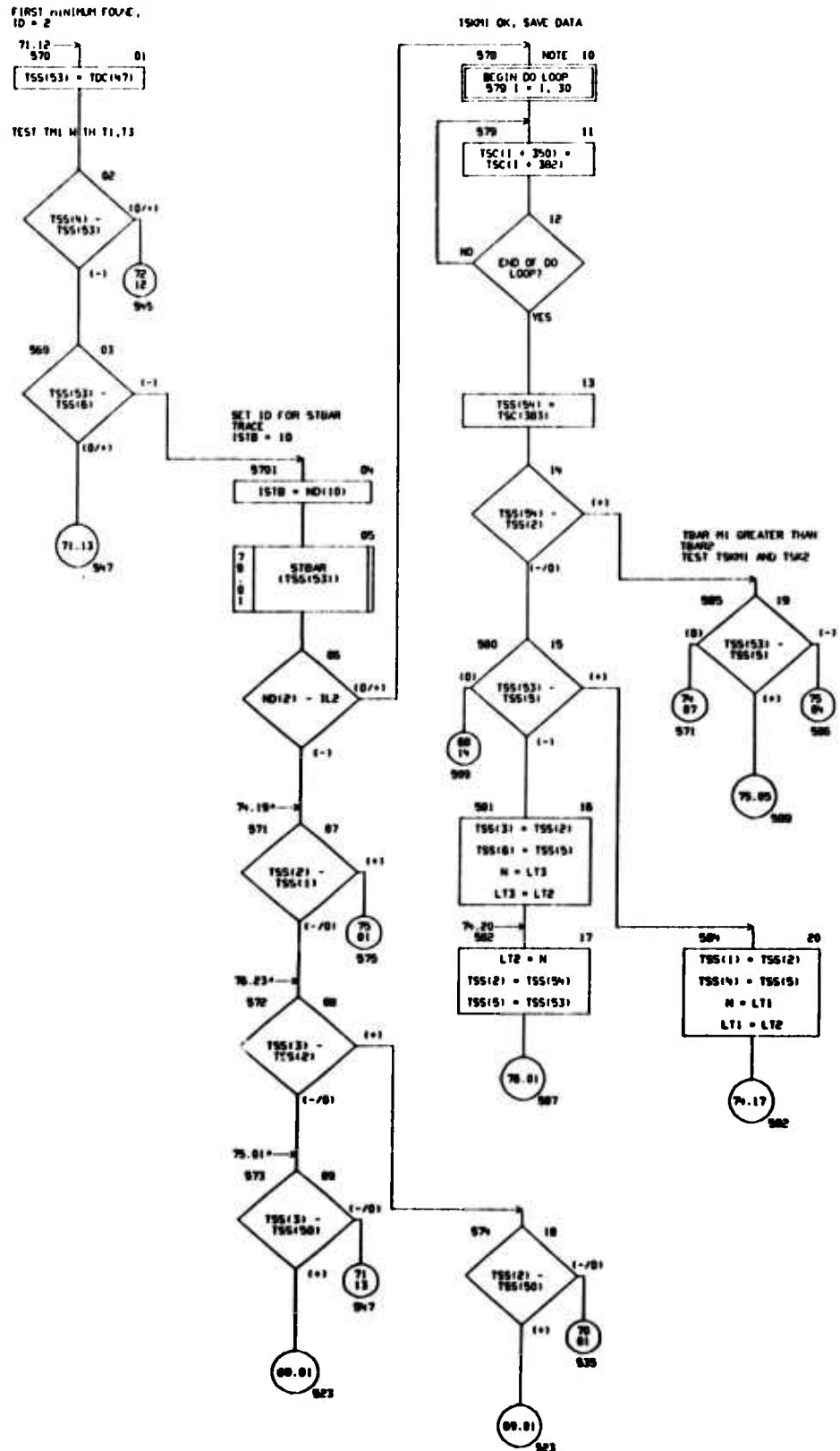


CHART TITLE - SUBROUTINE TSCN15C11

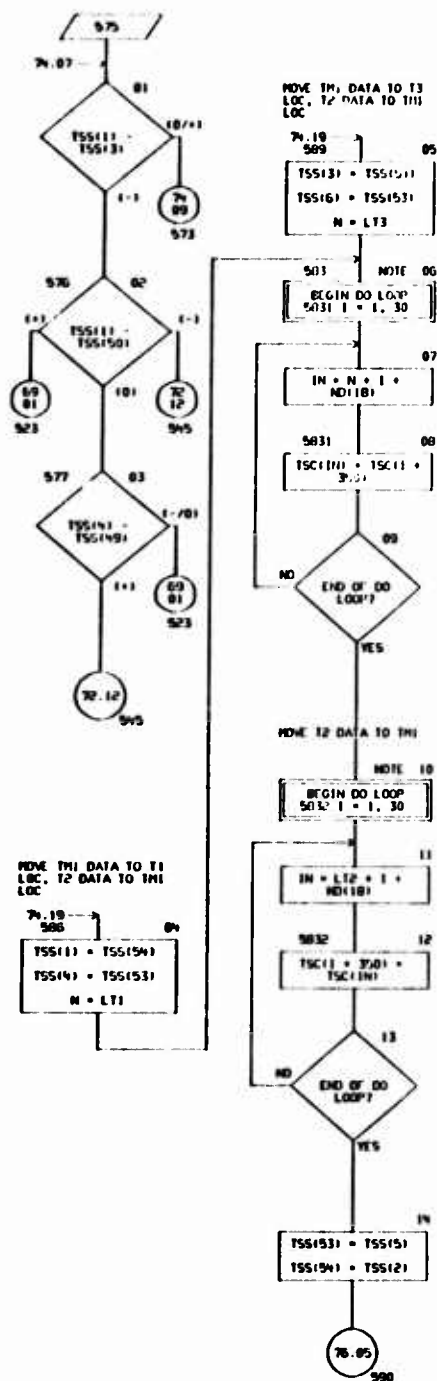


CHART TITLE - SUBROUTINE TSCNISC1

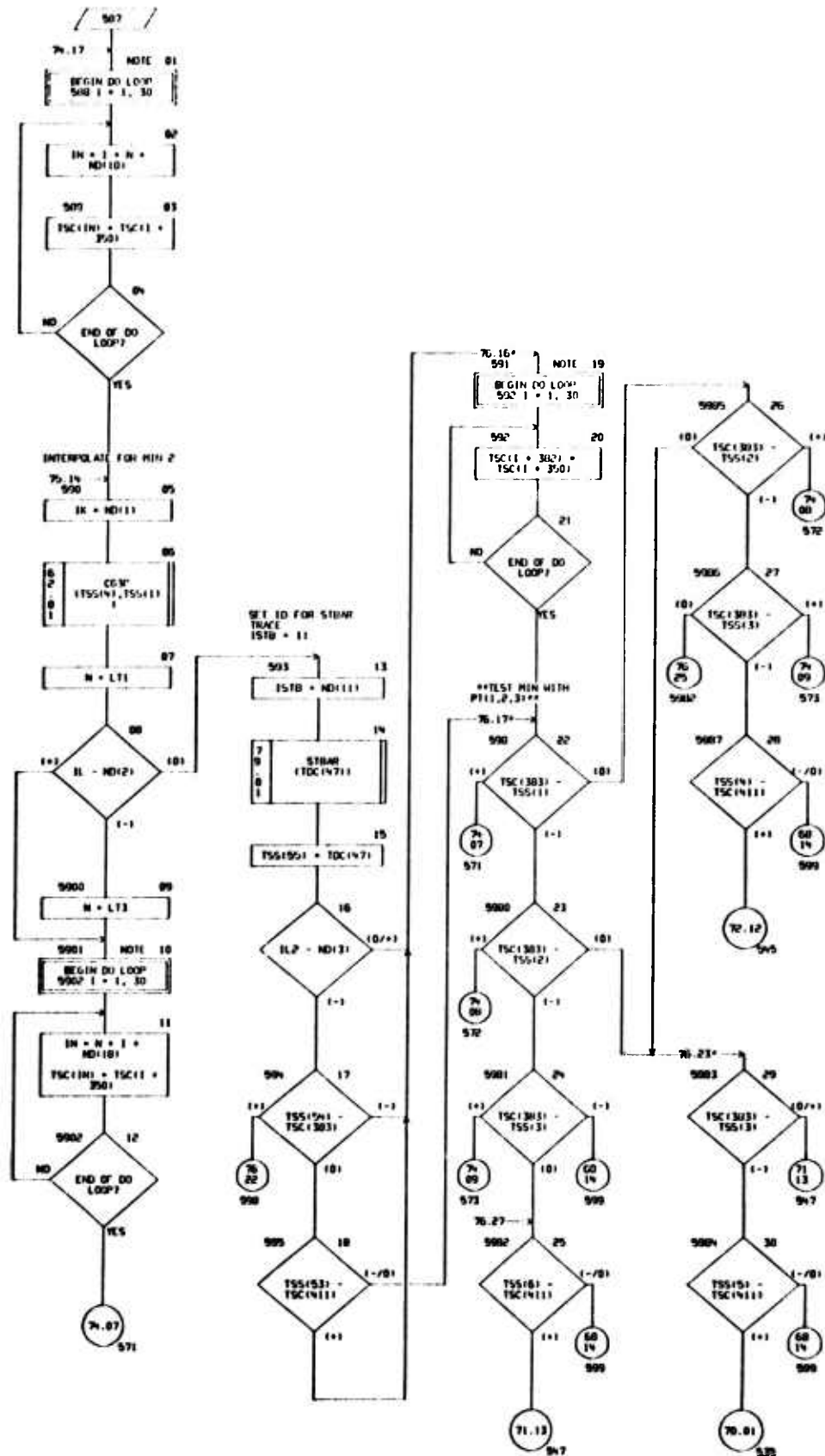


CHART TITLE - NON PROCEDURAL STATEMENTS

```

COMMON T(2060),D(2060),CD(2000),ND(100)
COMMON /IPRINT/ IP(80)
DIMENSION DC(100),
TDC(200),TSC(1420),TSS(100),TMT(1400),TSEC(300),
IDBP(4)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(134)),(TSS(1),T(136)),
(IDC(1),D(140)),(TMT(1),CD(110)),(TSEC(1),CD(150)),
(IDBP(1),D(1574)),(ISTRN,D(136)),(ISORN,D(137)),(ISTRN,D(137)),
(ISTLHN,D(1375)),(ISTLHN,D(1376)),(HSTHN,D(1377)),(ISTRN,D(1384)),
(ICNSTD,D(146)),(TKKHX,TDC(65)),(TKKHN,TDC(64)),(STRSK,D(1455)),
(BOTHR,TSEC(248)),(BOTFR,TSEC(249)),(BOHC,TSEC(250)),
(BOTFC,TSEC(251)),(CCRSH,TSEC(252)),(CCRZF,TSEC(253)),
(10SK,ND(51)),(1SK2,ND(146)),(1SK1,ND(145)),(1L,ND(140)),(1K,ND(139)),
(1L1,ND(134)),(1L2,ND(133)),(1L3,ND(132)),(1BT,ND(172)),(1MX,ND(171)),
(1L1,ND(126)),(1L2,ND(127)),(1L3,ND(128)),(1STB,ND(187)),(1N,ND(130)),
(1,ND(29)),(N,ND(131))

```

05/11/74

AUTOFLOW CHART SET - SHEEP MINING AND EMERGENCY MODULE - PAGE 70

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE STBAR*****

T-BAR EVALUATION FOR TOTAL COVER/SUIT STRUCTURES

CHART TITLE - SUBROUTINE STRIB(511)

START

05 04* 9

SUB TRIM SUB -

*** REVISION: 03-20-
72: REVERSE SAVE DATA
SAVE B-TIME, E-TIME
*** REVISION:
- 07-10-03: ADD FOR
LNR CODE: 14 STUN FOR
STRIP, PLATE
*** REVISION -
08-03-04: PLATES
AND E-TIME ***
REVISION: 01-10-04:
- NEW FORMAT, NEW
LINKAGES.

LINK TO STRIP, STRIL,
STRIB

INPUT IL, 1*
COLUMNS, 2* DO TRIM
OUTPUT IMD, 1-1A
04, 2-1A, 3-1
04, 4-ASTH NO.

198 [TSC(111) = SET]

02 IL - MD(2) 1-741

101

79.15 03

105 [IMD = MD(1)]

04 STRIB

05 IMD - MD(2) 1-741

101

06 06 110

DO COLUMN LENGTH

107 [STRIL]

06 SAVE YIDARI, TEST
LENGTH (L)

07 [TSC(106) =
TSC(131)]

*** TEST FOR
PLATES/AC

08 [CHSID = 011]

1-1

1070 [IMD = MD(1)
TSC(116) =
TSC(137)/STLPH
TSC(105) =
TSC(116)]

09

10 [STLPH =
TSC(137)]

1-1

106 [IMD = MD(1)]

11 [STLPH =
TSC(137)]

1-1

100 [TSC(137) = STLPH
IMD = MD(2)]

12

131

*** TEST FOR FOR ***

09 [0131 = CHSID]

1-1

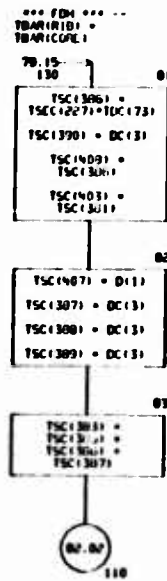
01.04 130

131

06/11/74

AUTOFLOW CHART SET - SLEEP WITH AND INTERPAGE MESSAGE - PAGE 00

CHART TITLE - SLEEP/TIME S/D/ARISE/



08/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 02

CHART TITLE - SUBROUTINE STBAR1ST1

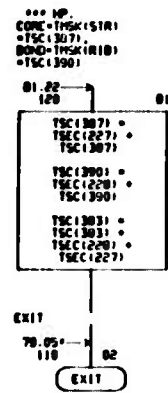


CHART TITLE - NON PROCEDURAL STATEMENTS

CUPPIN T(2000),D(2000),CD(2000),ND(100)
 DIMENSION DC(100),
 TDC(200),TSC(400),TSS(100),TSEC(300),TNT(400)
 EQUIVALENCE (TDC(1),TDC(400)),(TSC(1),TSC(400)),(TSS(1),TSS(100))
 EQUIVALENCE (TNT(1),CD(100)),(TSEC(1),CD(150))
 EQUIVALENCE (DC(1),D(100)),(STRN,D(350)),(STRN,D(370)),
 (STRN,D(390)),(TRVE,D(370)),(TRVE,D(390)),(STRN,D(370)),
 (STRN,D(390)),(TRVE,D(370)),(TRVE,D(390)),(STRN,D(370)),
 (STRN,D(390)),(TRVE,D(370)),(TRVE,D(390))
 (STRN,D(370)),(STRN,D(390)),(STRN,D(370)),(STRN,D(390))
 EQUIVALENCE (TRVE,D(370)),(STRN,D(390)),(STRN,D(370)),(STRN,D(390))

06/11/76

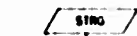
AUTORELON CHART SET - SHEEP WINGS AND EMBROIDERED MIXED - PAGE 04

CHART TITLE - INTRODUCTORY COMMENTS

****SUBROUTINE STAG****

OPTIMUM STRIKER MAIL DIST - GEOMETRY EVALUATION

CHART TITLE - SUBROUTINE STRG



70.04 --->

STRINGER GEOMETRY
SUBROUTINE

REVISION -- 11-30-72 --
 ADD SOLUTION EQUATION
 TO NO-STATEMENT
 NO. ***
 **REVISION--05-14-
 70--ADD DETAIL
 SECTION SEARCH PRINT.
 ID=D15.71
 **REVISION 11-13-
 09--CORRECT K1STR1
 LOGIC
 SU-D15.71 K2-D15.61**
 **REVISION--04-05-
 09--REVISE T1STR1 MIN
 LOGIC-FITSA1 ***
 **REVISION--
 07-10-68--ADD
 FDM ***
 REVISION--05-17-60--
 TEMP F14 FOR PLATES
 (PE THOD A)
 ID=D16.11-CHSID. NO
 PAD AT SPAR LINE.
 CONSTANT CAP AREA

***STRG NO. TYPE
 REGION T-STR
 H-STR F-UPR
 F-LWR
 (1) 00 21.22
 1.3 OPT
 OPT OPT
 (2) 00 21.22
 1.3 OPT
 OPT OPT
 MAX MAX
 (3) 129 21.22
 1.3 OPT MAX
 OPT OPT
 (4) 112 21.22
 1.3 OPT OPT
 MIN OPT
 (5) 123 22 MAX
 1.3 OPT
 MIN OPT
 (6) 21 1.3
 FMAX FMAX
 110 21 1.3
 MIN/MIN MAX
 1.3
 122 21.22 1.3
 FMAX FMAX
 FMIN FMIN
 1.3 129 22 MAX
 1.3 FMAX
 FMAX FMAX
 1.3 MIN/MIN MAX
 1.3
 (4) 21.22 1.3
 FMAX FMAX
 FMIN FMIN
 122 21 2.3
 L-M MIN
 104 21.22 2.3
 TWO MIN
 105 21.22 2.3
 TWO MIN
 L-M-FU MIN
 106 21.22 2.3 MAX
 TWO L-FU-FL
 MAX
 72 ALL ALL
 **STR AREA TOO
 SMALL**
 70 ALL ALL MIN
 TWO MIN
 100 21.22 1.2.3
 A/L MAX MAX
 MAX MAX
 107 21.22 1.2.3
 A/R MAX MAX
 03 1 1.3 0
 OPT OPT
 03 1 1.2.3 0
 A/R MAX
 07 1 1.2.3 0
 TWO A/T 0
 0

REVISION -- 01-10-08
 -- NEW FORMAT, NEW
 LINKAGE

T BISH = VARIABLE,
 PC=CONSTANT
 (H=) DC
 (H=) NO

***PRINT T1SK1,
 ASTRIN DATA. IR=2.
 BLOCK 2 **

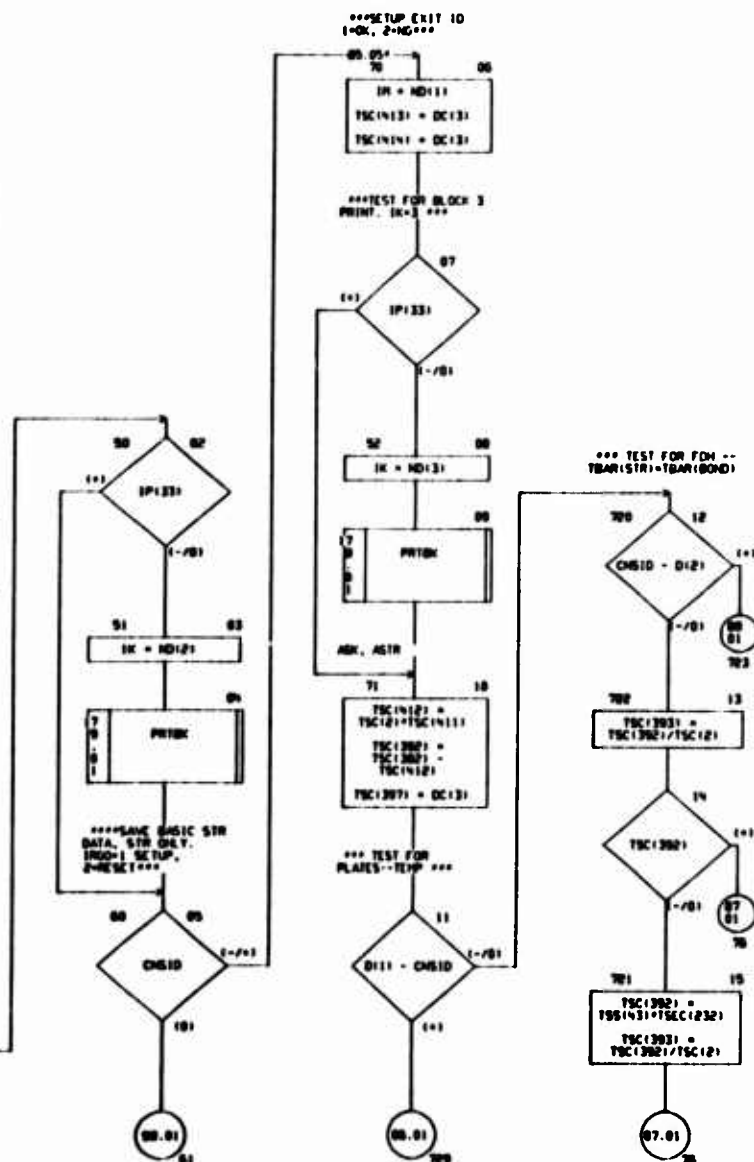
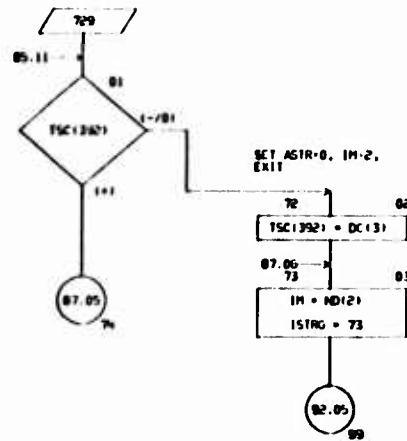
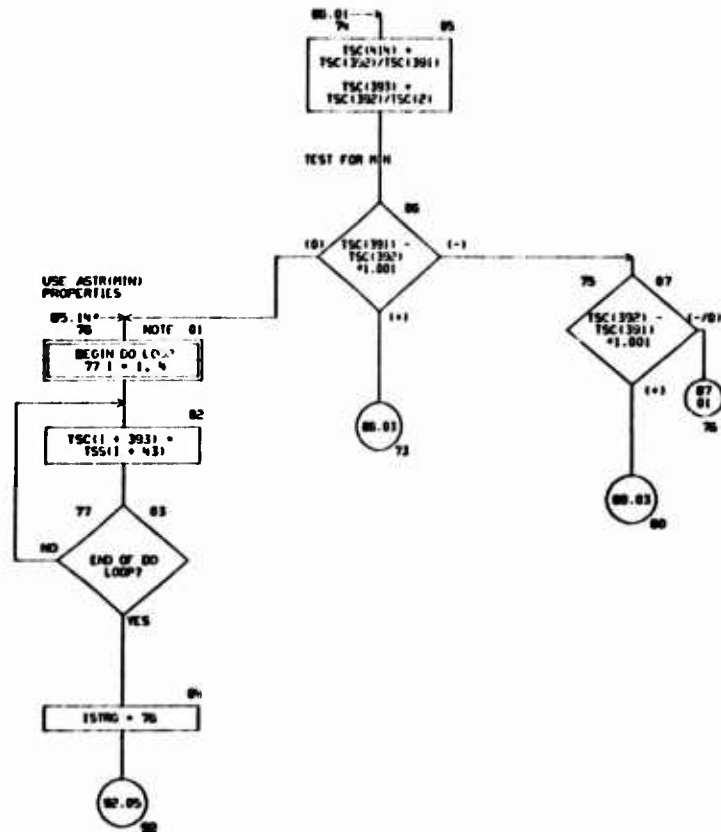


CHART TITLE - SUBROUTINE STRG



SETUP DATA -- R,
T-BAR(SIR)

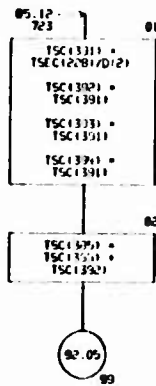


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AUTOFLOW CHART SET - SHEEP WING AND EMPLOYING MODULE - PAGE 08

CHART TITLE - SUBROUTINE SING

*** EDH ***



COMPUTE STR GEOMETRY

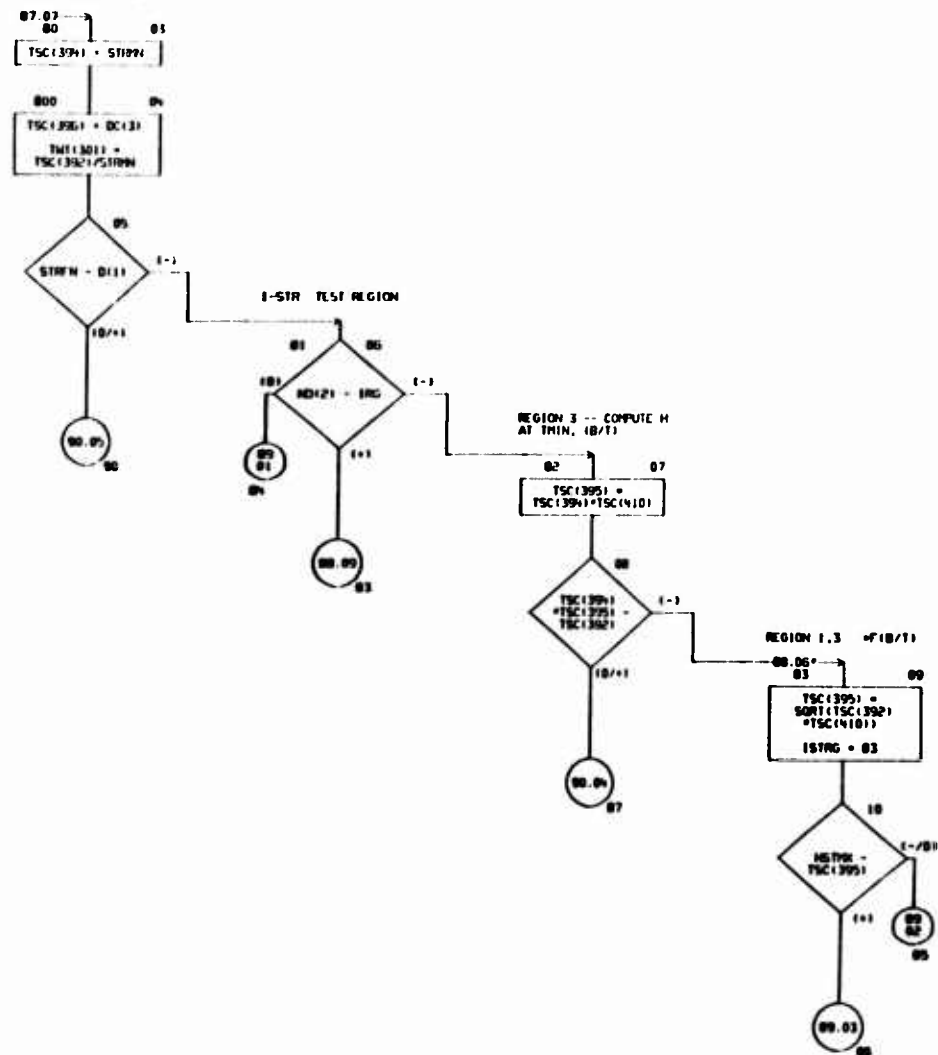
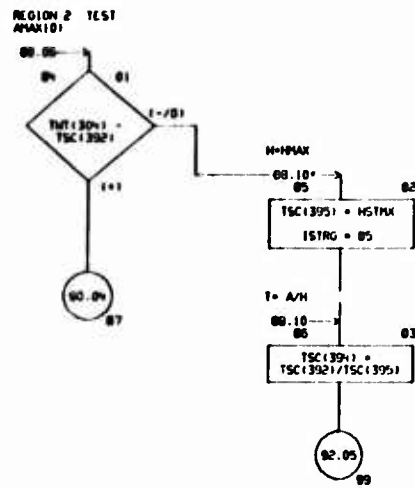


CHART TITLE - SUBROUTINE S1R0



$T = TMO, H = A/I$
 $IS(395) =$
 $IS(392)/IS(394)$
 $ISTMG = 87$
 92.05

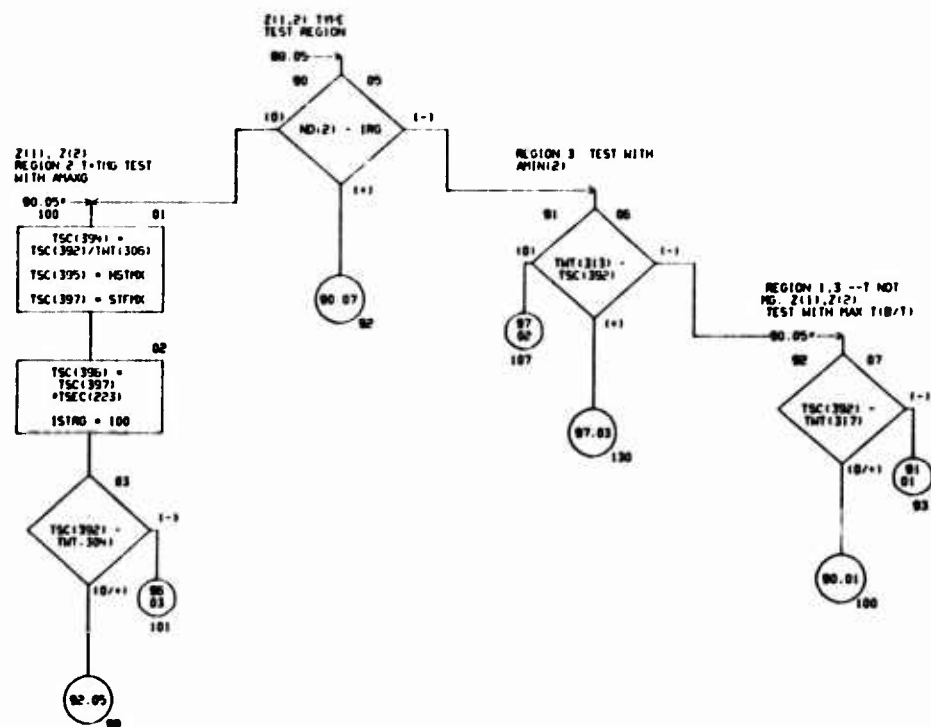
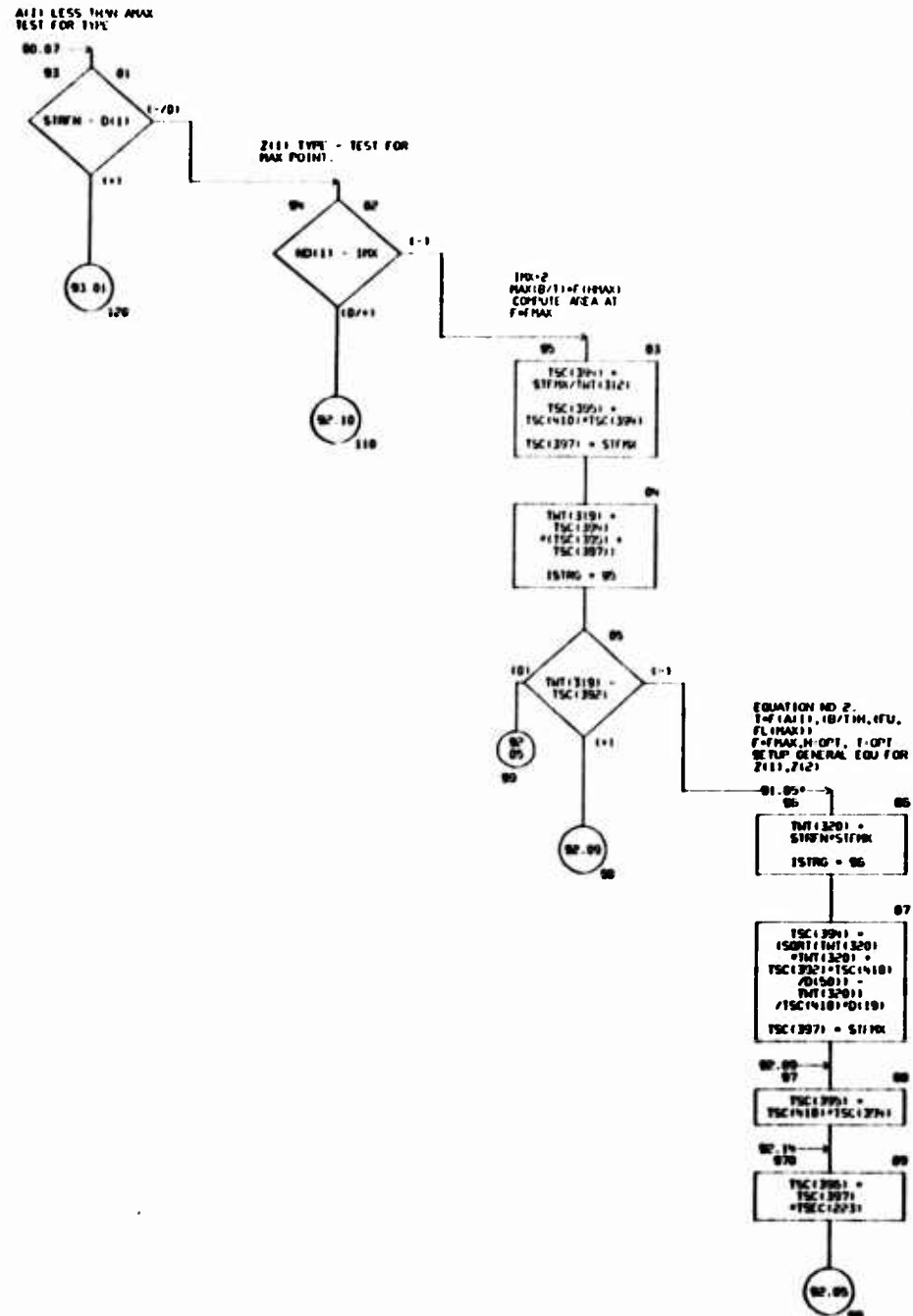
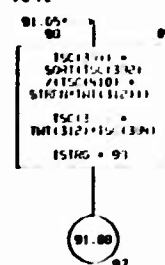


CHART TITLE - SUBROUTINE STNG



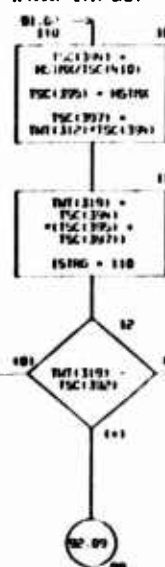
EQUATION NO 1. OPT
T.FU.FL.H
M.FIL.FIU = OPT
FU-FL



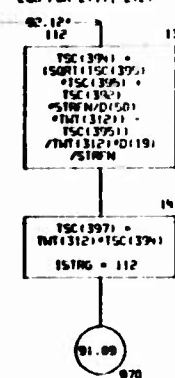
```

INDEX MAX(B/T)
OF (I) MAX
EYES 1111 AREA AT
01 1212
001 MAX 2(1) ONLY

```



EQUATION NO 4.
 $T = F(A(1)), HMAX, (B/1)F$
 $N = HMAX, T = OPT$
 FULL OPT -- GENERAL
 EQU FOR Z(1), Z(2)



```

graph TD
    Start([START]) --> Loop{DO WHILE  
IP(SSI) <= 100}
    Loop --> Calc[IK = ND*VI]
    Calc --> Print[PRINT  
IK]
    Print --> Loop
    Loop --> Exit([EXIT])
  
```

**** EXIT PAGE.
TEST FOR RMI OR SIN
DATA. INFO 2.***

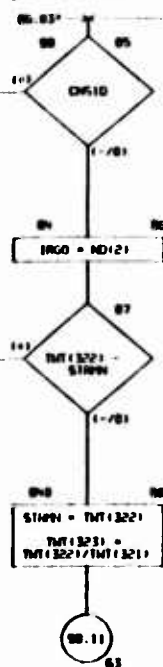


CHART TITLE - SUBROUTINE STRG

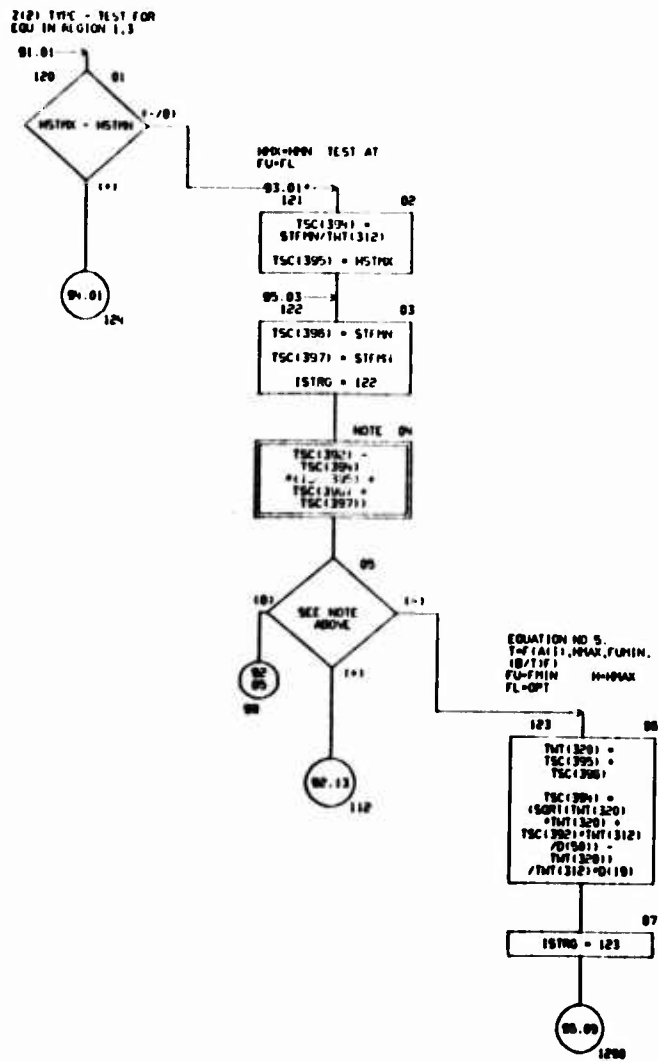


CHART TITLE - SUBROUTINE STRG

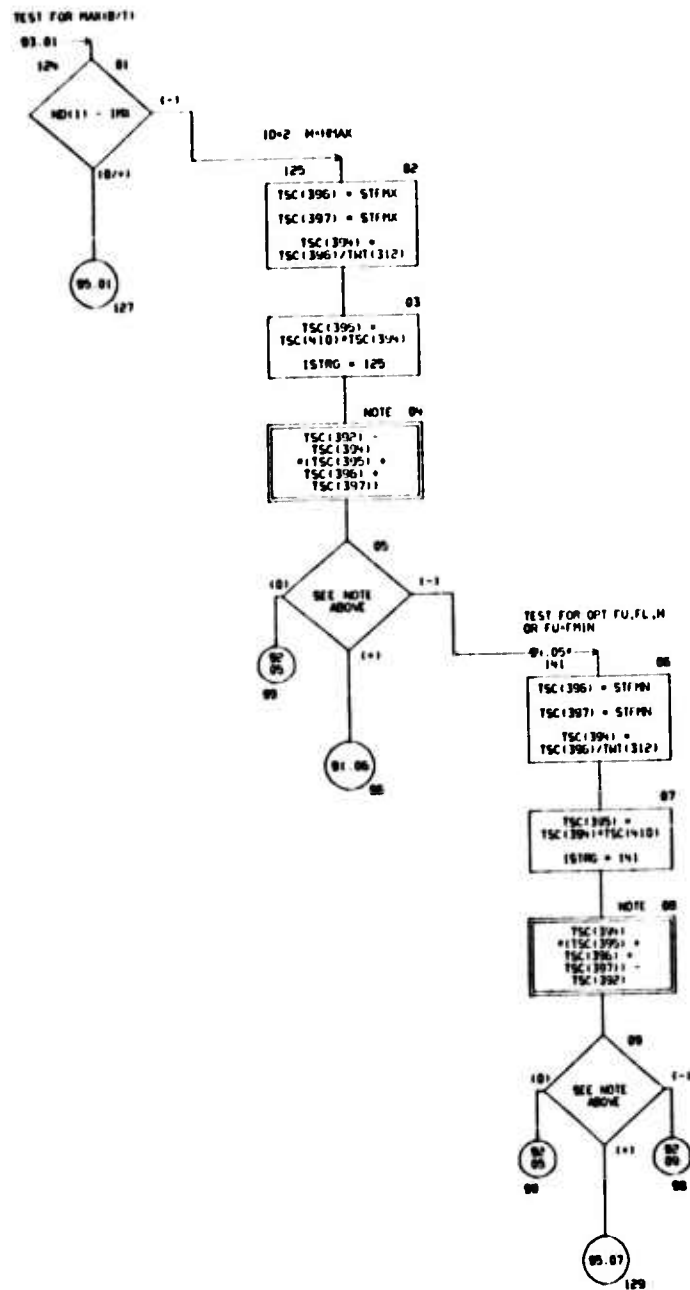


CHART TITLE - SAYING TIME STAG

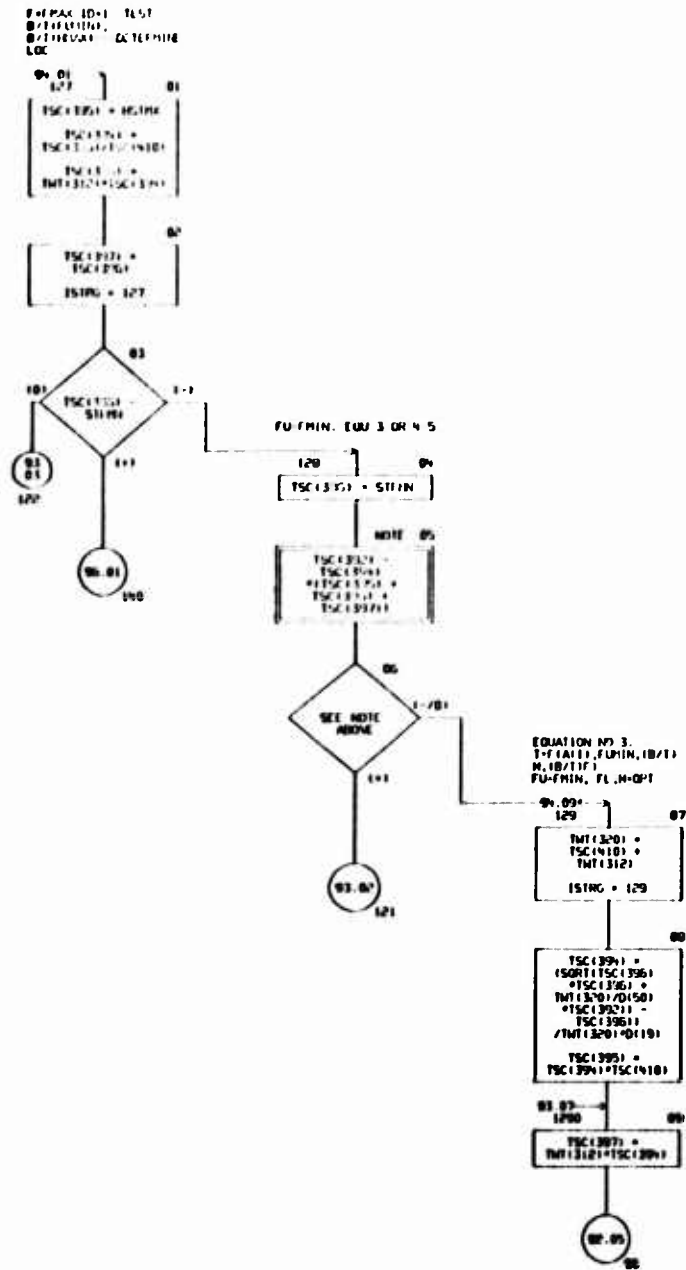
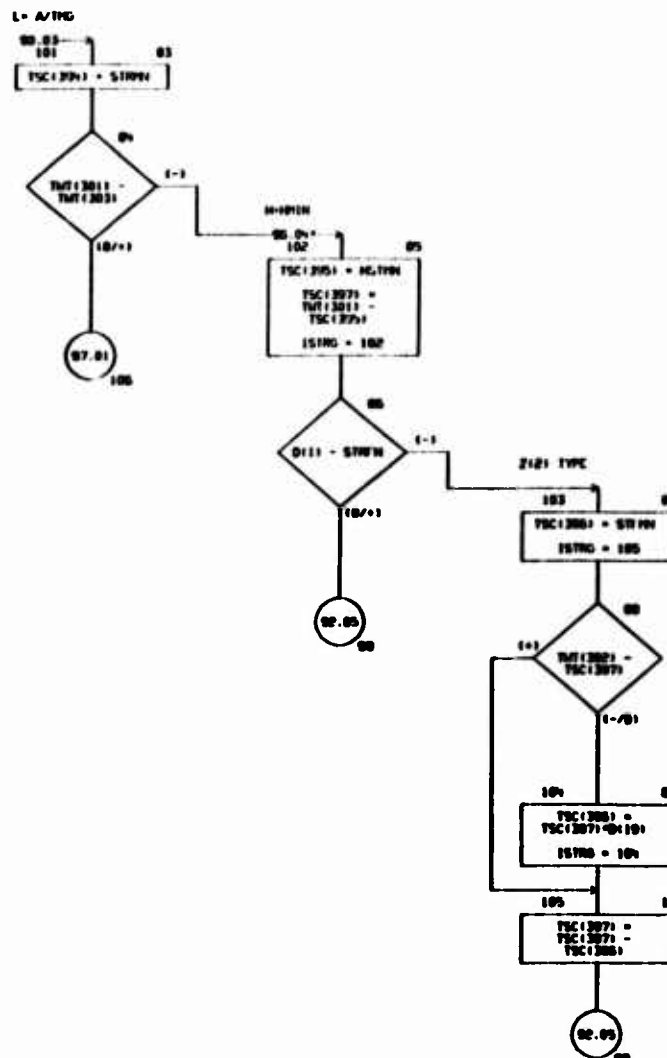
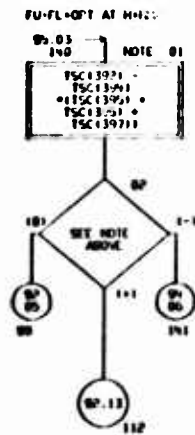
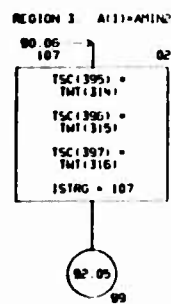
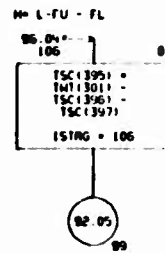


CHART TITLE - SCHEDULE STRG



CHARI TITLE - SUBROUTINE SING



REGION 3: ALL LESS
THAN AMINE 1-1MG
TEST FOR 211,212)

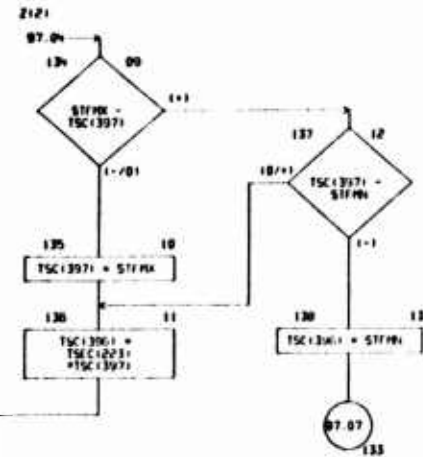
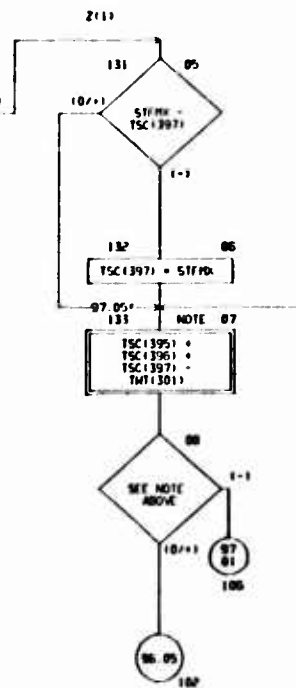


CHART TITLE - SUBROUTINE STRG

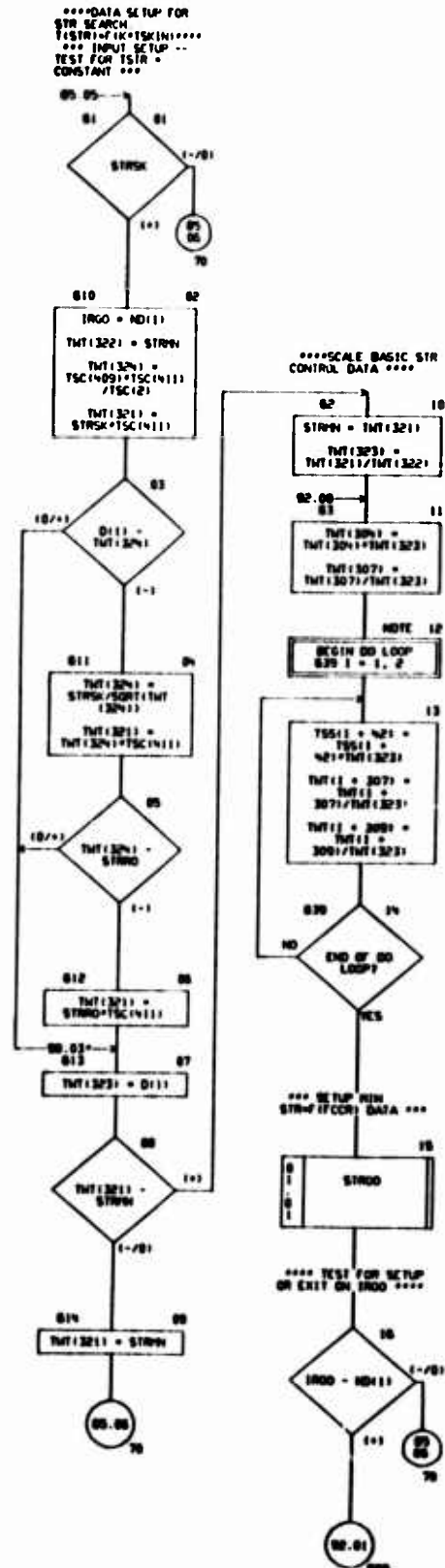


CHART TITLE = NEW PROCEDURAL STATEMENTS

```

COMMON T12000,D12000,CD12000,ND1100
COMMON /PRINT/ IP100
DIMENSION DC1100,
TDC1200,TS1420,TS1100,TW1400,TS1300,
D12PIN
EQUIVALENCE (TDC11,T12411),(TS111,T12411),(TS111,T12411)
EQUIVALENCE (DC11,D14011),(STR1N,D1311),(STR1N,D13711),
(STR1N,D13711),(STR1N,D13711),(STR1N,D13711),(STR1N,D13711),
(STR1N,D14511),(STR1N,D14511),(STR1N,D14511),
(STR1N,D14511)
EQUIVALENCE (TW111,CD11011),(TS111,CD11011)
EQUIVALENCE (T1N,ND1311),(T1N,ND1311),(T1N,ND1311),(T1N,ND1311),
(T1N,ND1311)
. (STR1N,ND1001)

```

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AUTOFLOW CHART SET - SHEEP WIND AND PRESSURE PIVOT - PAGE 109

CHART TITLE - INTRODUCTORY COMMENTS

*****ROUTINE START*****

STRUTTER GEOMETRY - BOARD/INITIALIZATION

CHART TITLE - SUBROUTINE STRGO

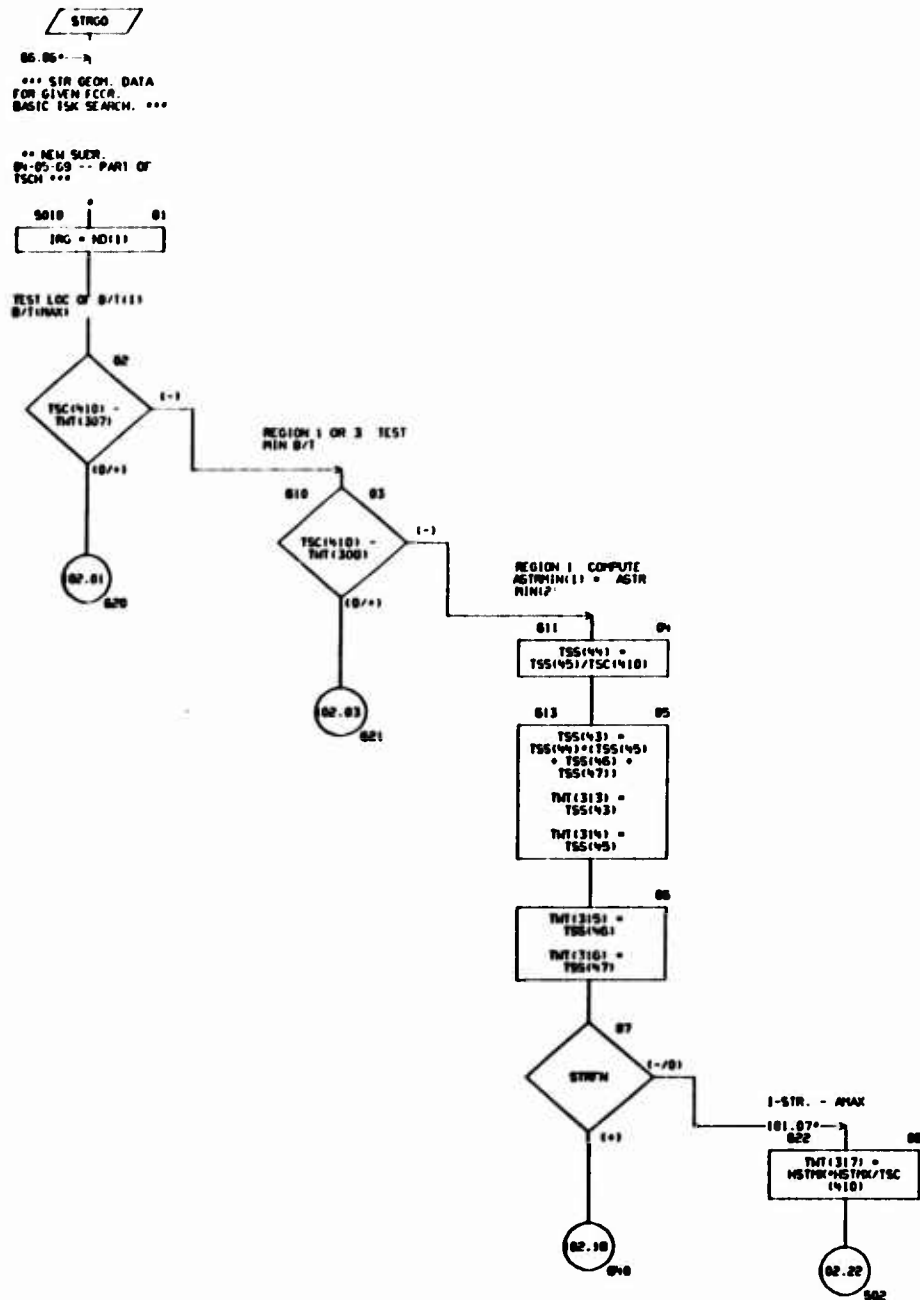


CHART TITLE - SUBROUTINE STRGO

B/T(1) GREATER THAN
B/T(PX)

REGION 2

101.02 → 01
 020
 1RG = ND(2)
 TMT(317) =
 TMT(304)
 TMT(313) =
 TMT(304)
 TMT(314) = MSTPX

02
 TMT(316) =
 STFPM/TSC(202)
 TMT(315) =
 STFPM/TSC(203)

02.22
502REGION 3: CALC
AMIN(2): INOT ROP FOR
I.)101.03 → 03
021

03
 1RG = ND(3)
 TMT(314) =
 TSC(410)*STFPM
 TMT(316) =
 TMT(312)*STFPM

04
 1-1
 STFPM = D(11)
 101
 101.00 → 04
 042
 101.10 → 030

Z(1) TYPE

05
 10/+1
 053
 MSTPX =
 TMT(314)
 1-1
 06
 TMT(314) = MSTPX

07
 10/+1
 065
 STFPM =
 TMT(316)
 1-1
 08
 TMT(316) = STFPM

09
 10/+1
 067
 TMT(313) =
 STFPM*(TMT(314) +
 TMT(316))

02.10
040

Z(2) TYPE

102.04 → 10
 030
 TMT(315) = STFPM

11
 1-1
 031
 MSTPX =
 TMT(314)
 1-101
 12
 TMT(314) = MSTPX

13
 1-1
 032
 TMT(316) =
 STFPM
 1-101
 14
 STFPM =
 TMT(316)
 10/+1

15
 034
 TMT(316) = STFPM

16
 035
 TMT(315) =
 TMT(316)

17
 036
 TMT(313) =
 STFPM*(TMT(314) +
 TMT(316))

18
 101.07 → 18
 040
 TMT(320) =
 MSTPX/TSC(410)

19
 1-1
 041
 1RG = ND(11)
 1-101
 20
 TMT(320) =
 STFPM/TMT(312)

21
 042
 TMT(317) =
 TMT(320)*TMT(306)

22
 101.00 → 22
 042
 TSC(391) =
 TSC(43)

23
 043
 NEXT
 999
 EXIT

CHART TITLE - PLAN-PROCEDURAL STATEMENTS

COMMON T(2060),D(2060),CD(2000),ND(100)
 DIMENSION DC(100),
 TDC(200),TSC(420),TSS(100),THT(400),TSEC(350)
 EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(154)),(TSS(1),T(106)),
 (THK,T(1405)),(TH34,T(1404))
 EQUIVALENCE (DC(1),D(140)),(STPHN,D(36)),(SAPN,D(37)),
 (STRN,D(37)),(RNG,D(37)),(STLPH,D(375)),(STLPH,D(376)),
 (HSTPH,D(377)),(HSTPH,D(378)),(STPHK,D(379)),(STPHN,D(384)),
 (CMSID,D(46))
 EQUIVALENCE (TH(1),CD(110)),(TSEC(1),CD(150))
 EQUIVALENCE (IDK,ND(51)),(IS(2),ND(46)),(IS(1),ND(45)),(IL,ND(40)),
 (IK,ND(39)),(IL1,ND(34)),(IL2,ND(33)),(IL3,ND(32)),(IN,ND(31)),
 (IN,ND(30)),(I,ND(29)),(LT3,ND(28)),(LT2,ND(27)),(LT1,ND(26)),
 (BT,ND(22)),(PHK,ND(17)),(IRG,ND(17))

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AUTOFLOW CHART SET - SWEEP MING AND ENTERAGE MODULE - PAGE 104

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE STRIL*****

STRIMER COLUMN LENGTH EVALUATION

CHART TITLE - SUBROUTINE STRIL

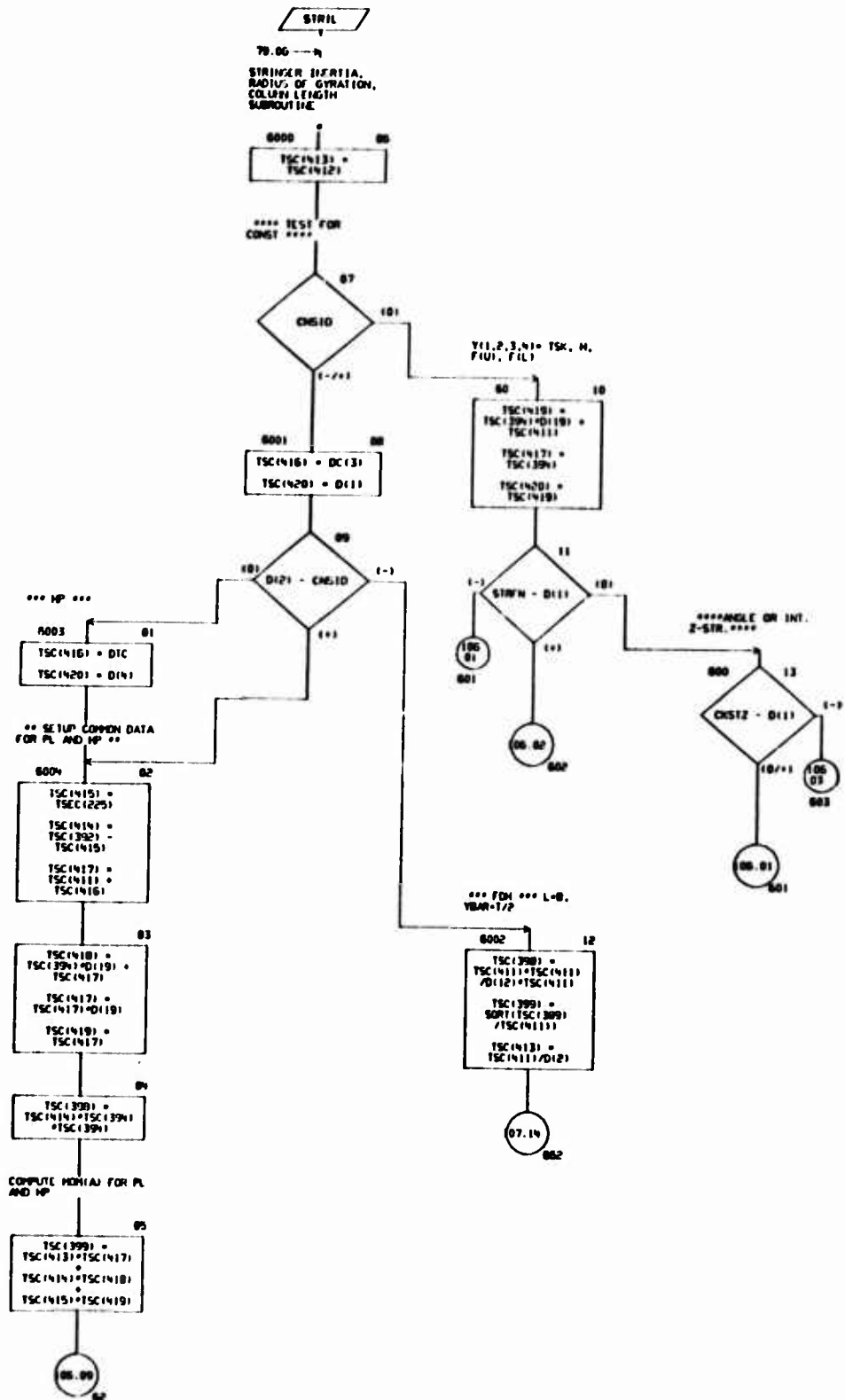


CHART TITLE - SUBROUTINE STRIL

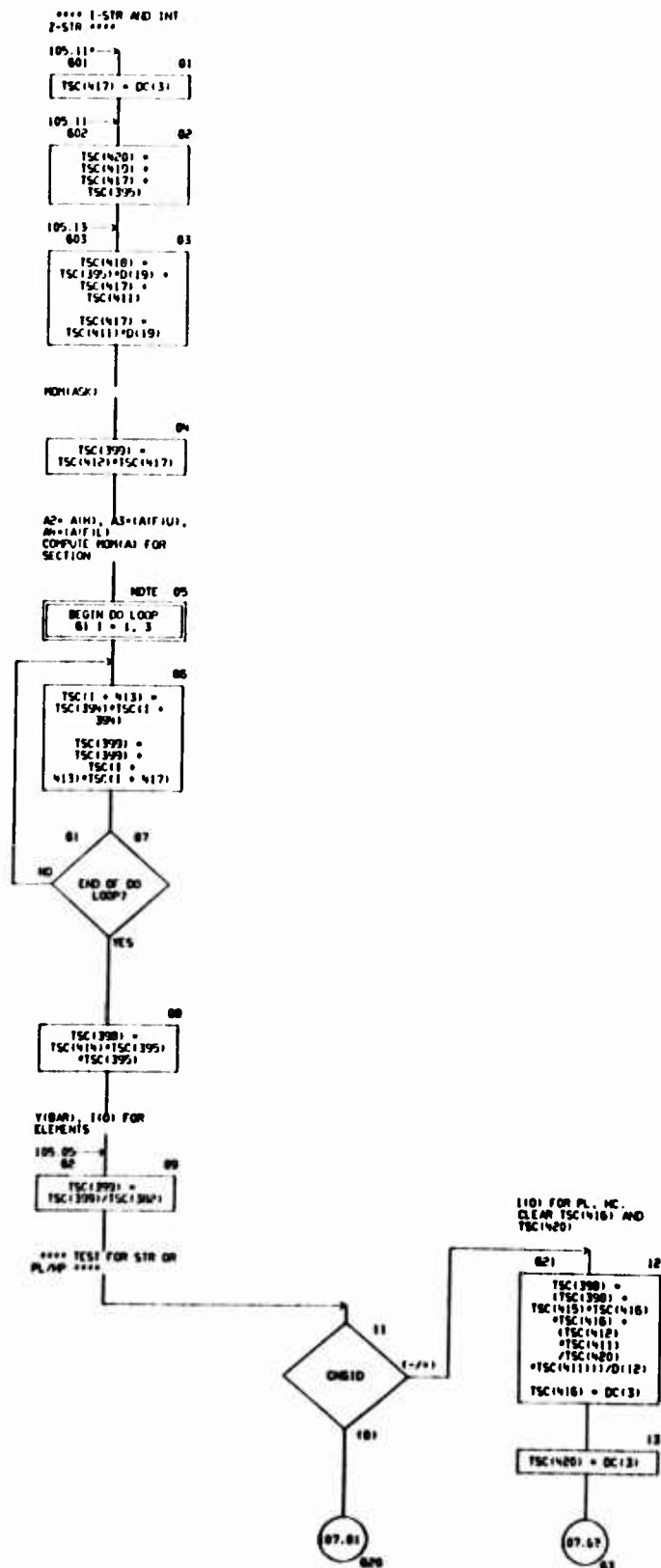
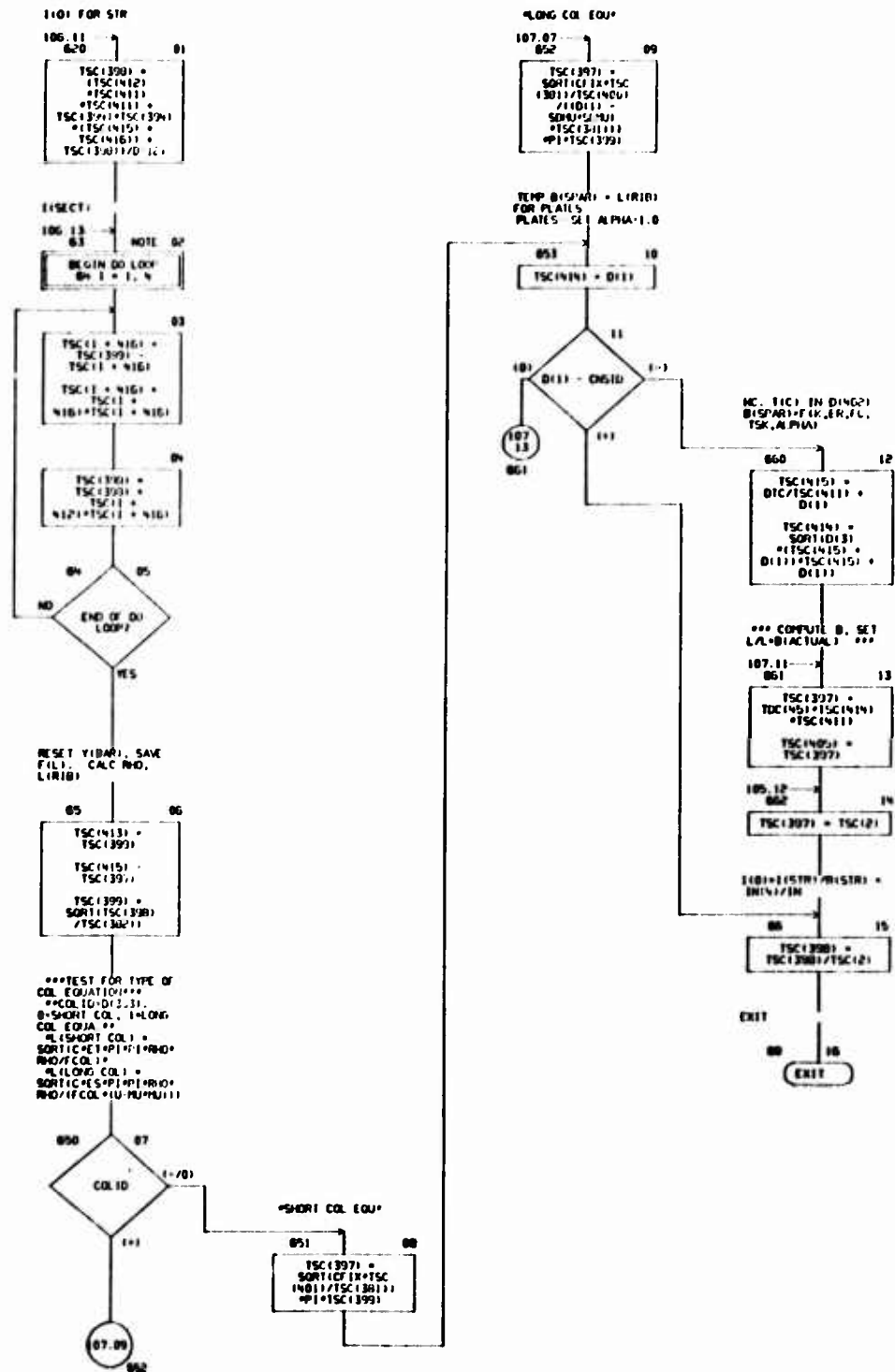


CHART TITLE - SUBROUTINE STRIL



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AUTO LOW CHART SET - SLEEP WITH AND EXPERIENCE MAKE - PAGE 108

CHART TITLE - NOX PROCESSION STATEMENTS

```
COMMON T(2000),D(2000),CD(2000),NO(100)
DIMENSION DC(100),TDC(200),TSC(400),TSC(100),
DTL(100),
TSC(100)
EQUIVALENCE (TDC(1),T(100)),(TSC(1),T(500)),(TSC(1),T(500)),
(TDC(1),D(100)),(TSC(1),CD(100)),
(PT,D(100)),
(STRN,D(100)),(ENSD,D(100)),
(COLID,D(100)),(CFIX,D(100)),
(ENTL(1),T(200)),(ENL(1),D(100)),
(CKSTZ,D(100)),(SLPM,D(100)),(DTC,D(100))
```


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AUTOFLW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 109

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE STRIB*****

RIB SYNTHESIS CONTROL - RIB T-BAR EVALUATION

CHART TITLE - SUBROUTINE STRIB

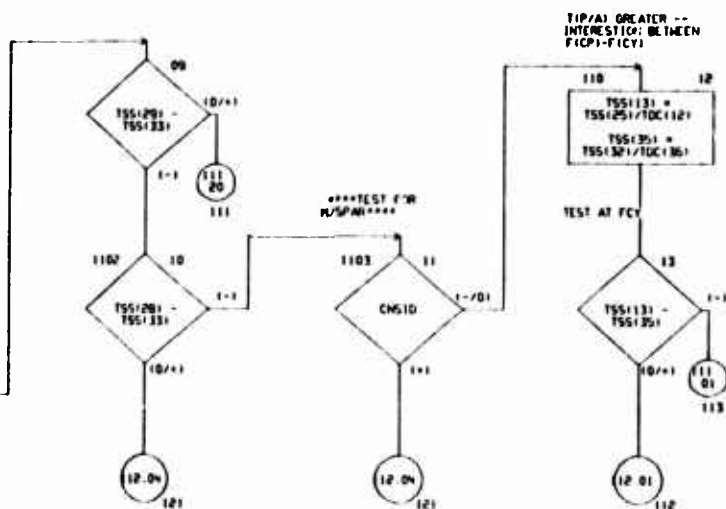
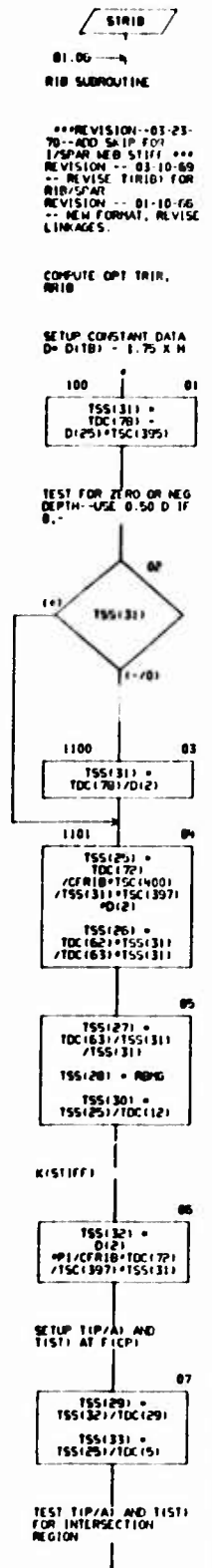


CHART TITLE - SUPPLEMENTARY STRIP

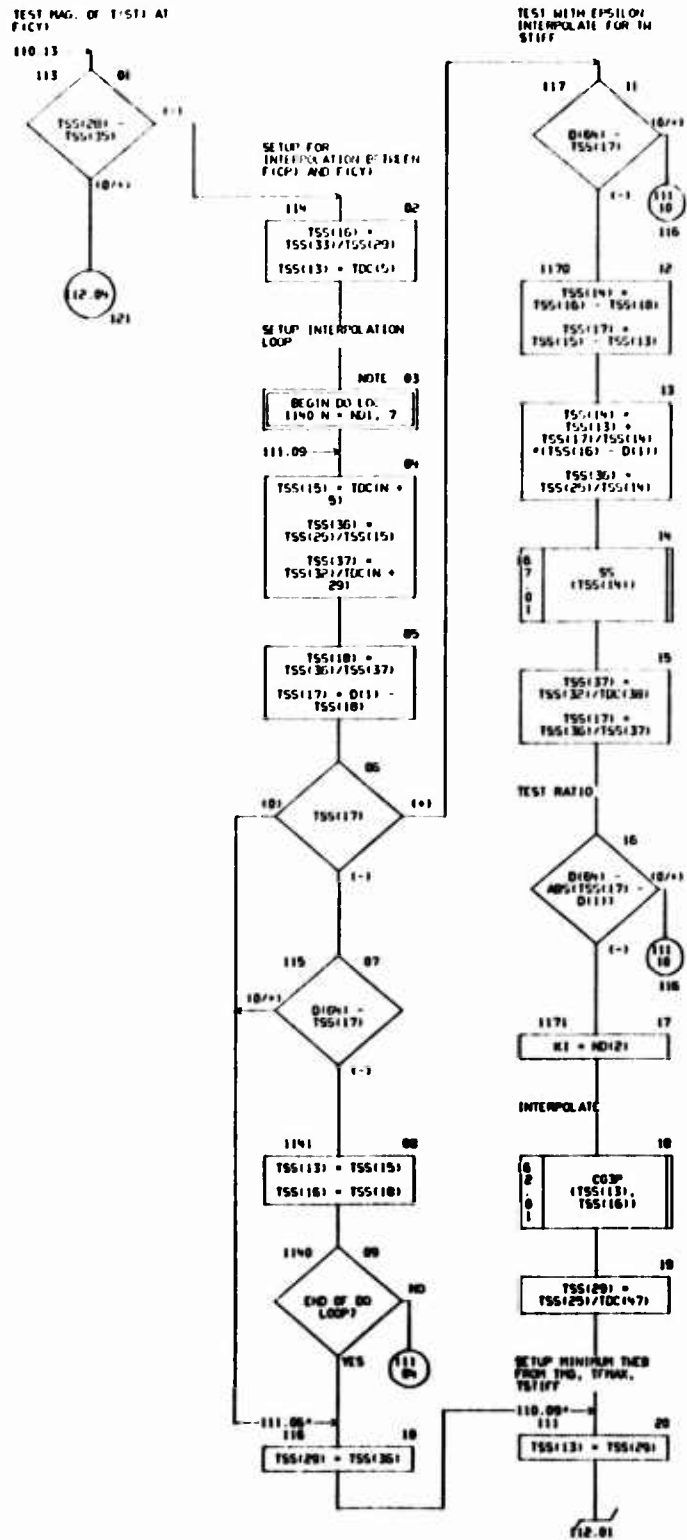


CHART TITLE - SUBROUTINE STRID

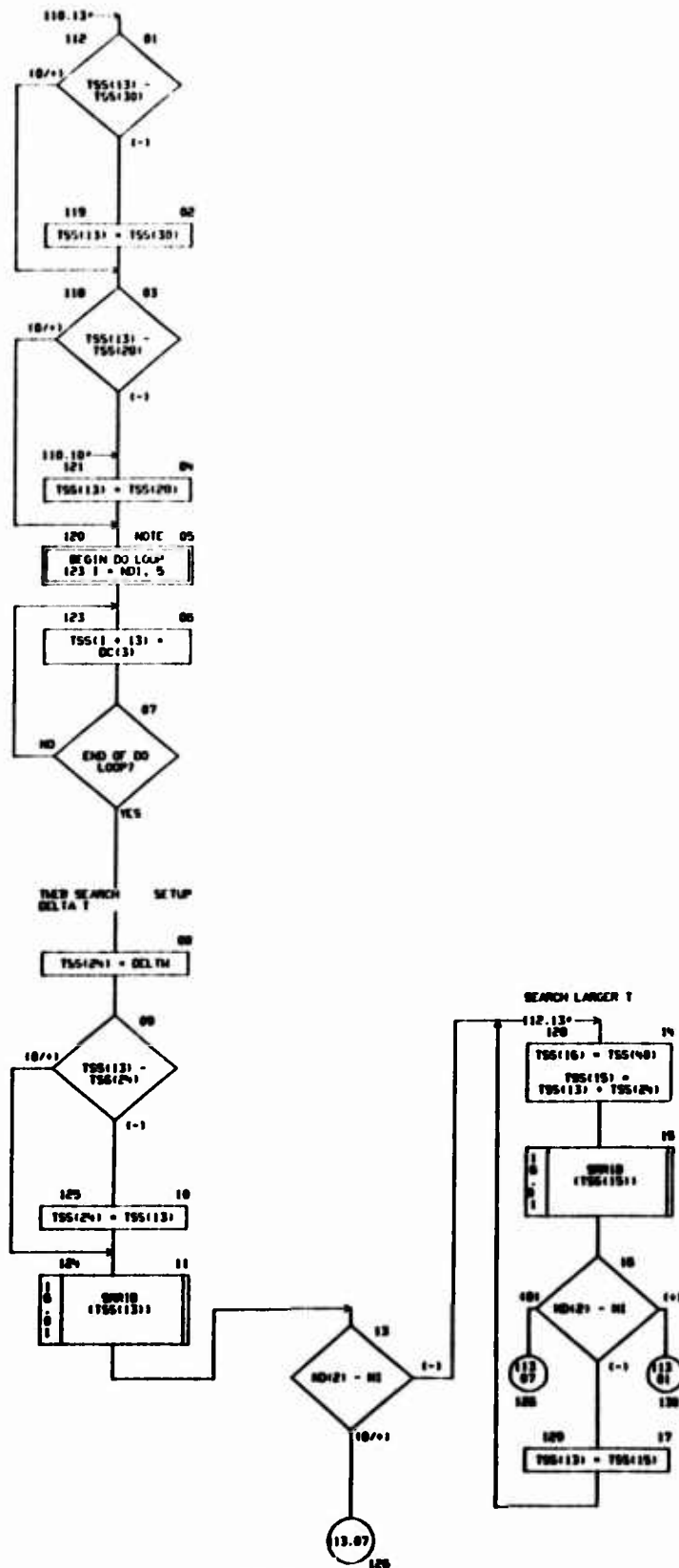
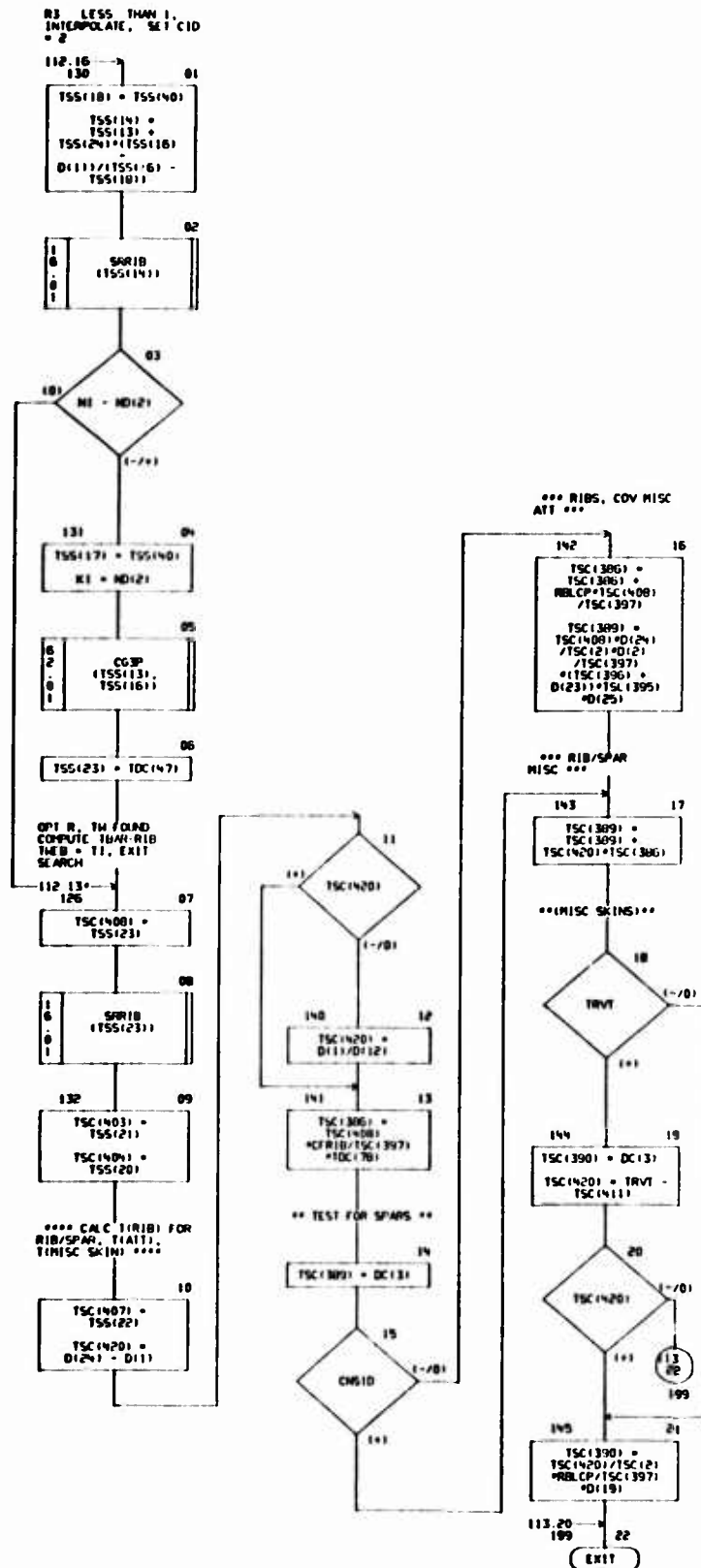


CHART TITLE - SUBROUTINE STRIB



06/11/74

AUTOFLOW CHART SET - SHEEP HING AND EMPENNAGE MODULE - PAGE 114

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON T(2060),D(2060),CD(2000),ND(100)
DIMENSION
TDC(200),TSC(420),TSS(100),DC(100)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(154)),(TSS(1),T(186))
EQUIVALENCE (DC(1),D(140)),(PT,D(15)),(RRHO,D(132)),
(CFRIB,D(400)),(DELTH,D(406)),(RBLCP,D(405)),(TRVT,D(397)),
(CHSID,D(461))
EQUIVALENCE (LI,ND(40)),(KI,ND(32)),(NI,ND(38)),(IN,ND(31)),
(ND1,ND(1))

06/11/74

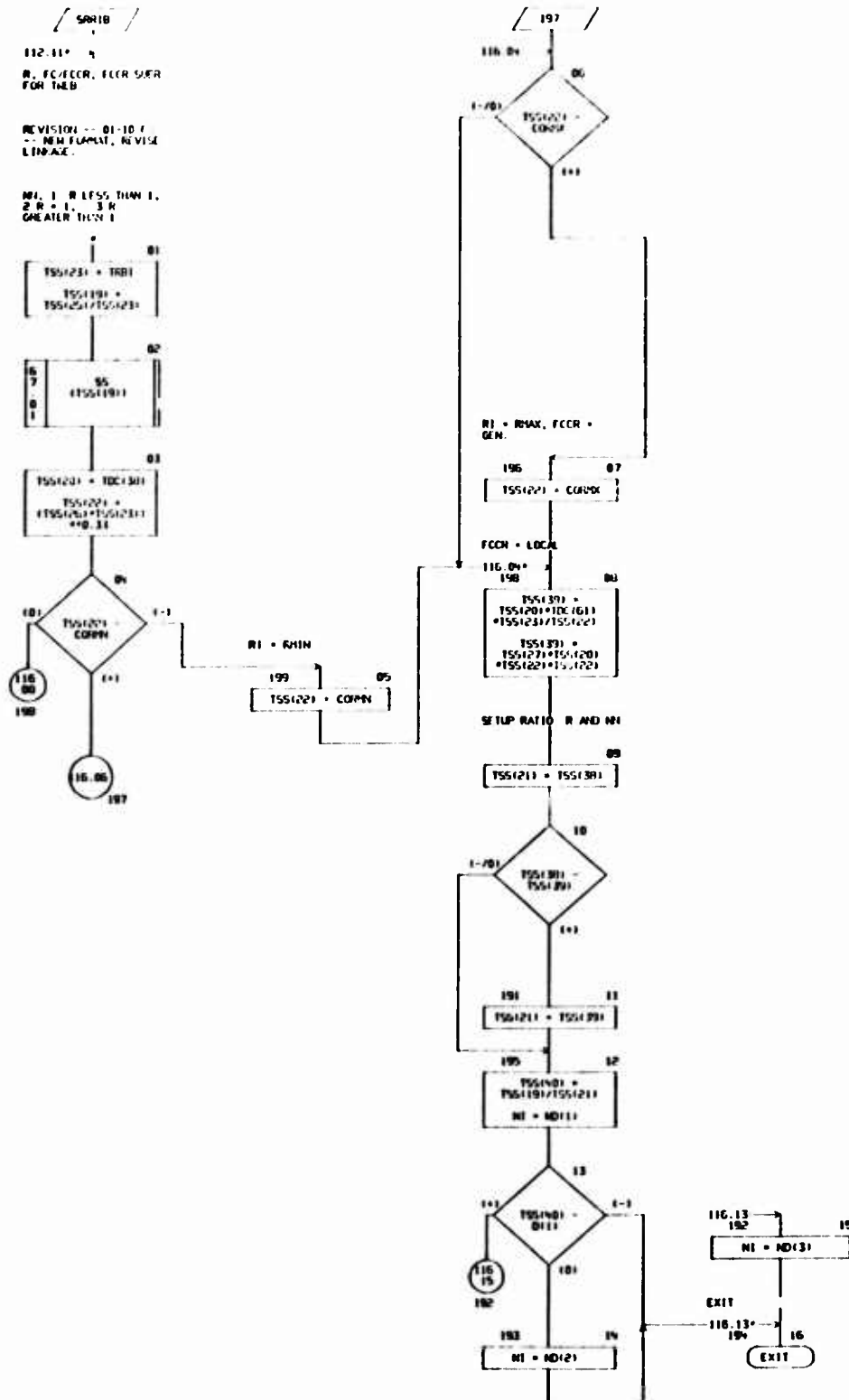
AUTOFLOW CHART SET - SWEEP MINS AND EMPERAGE MODULE - PAGE 115

CHART TITLE - INTRODUCTORY CONTENTS

*****SUBROUTINE SARC*****

RID TIME EVALUATION

CHART TITLE - SUBROUTINE SRRH10001



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AUTOFLOW CHART SET - SHEEP HING AND EMPENNAGE MODULE - PAGE 117

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON T(2060),D(2060),CD(2000),ND(100)
DIMENSION
TDC(200),TSC(420),TSS(100)
EQUIVALENCE (TDC(1),T(1341)),(TSC(1),T(1241)),(TSS(1),T(1981))
EQUIVALENCE (COMMON,D(403)),(COMMON,D(404))
EQUIVALENCE (NI,ND(30))

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AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 110

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE STHEB*****

FRONT/REAR SPAR CAP/WEB EVALUATION

CHART TITLE - SUBROUTINE STABDIVLDEPTH

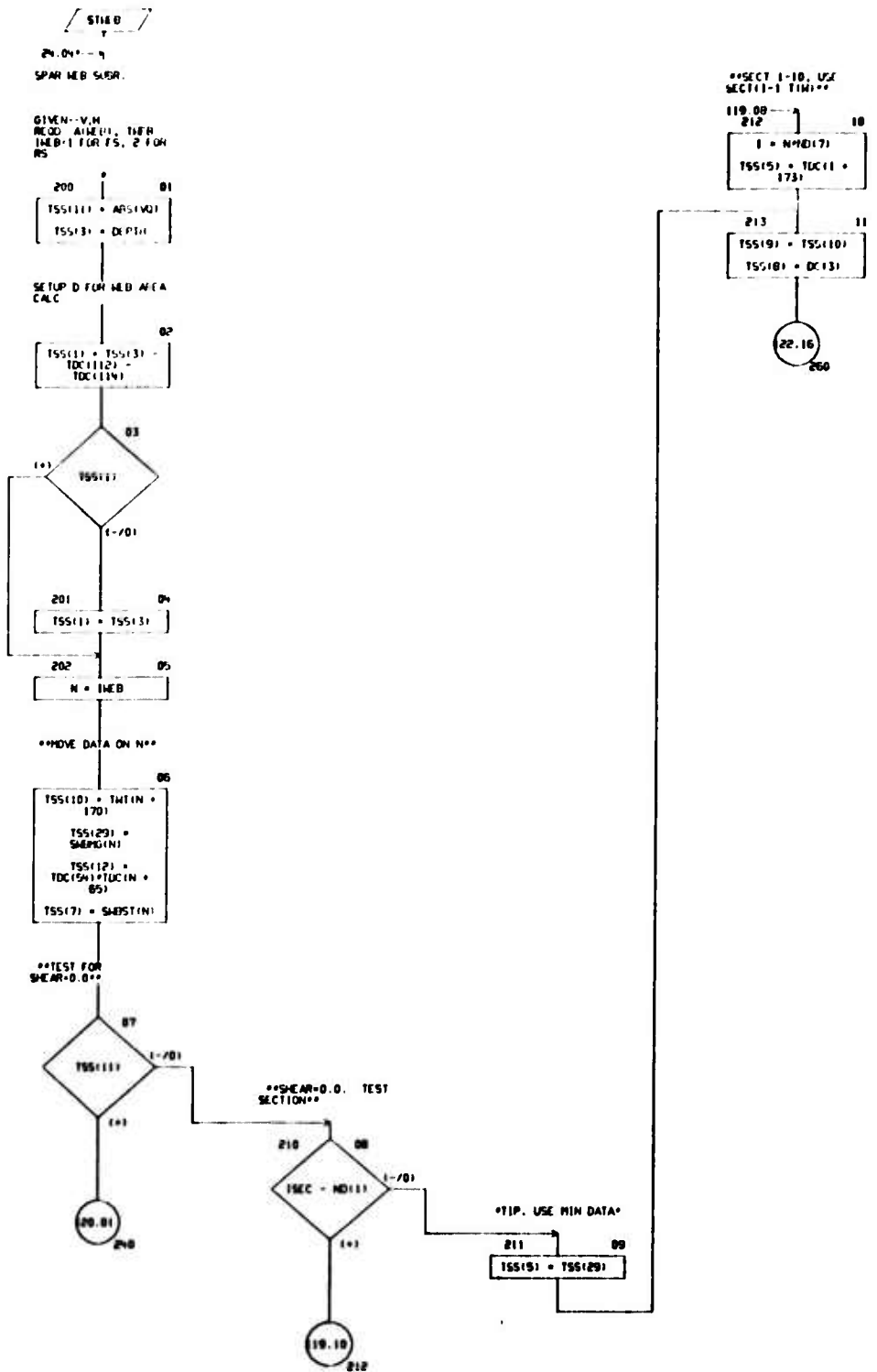


CHART TITLE - SKETCHING SHEET 120

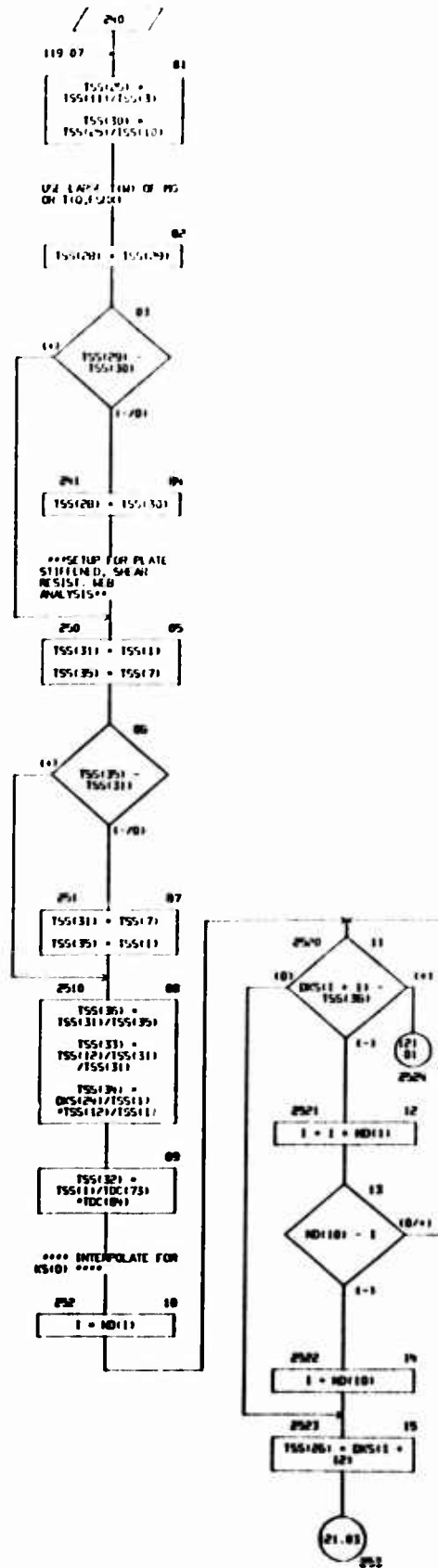
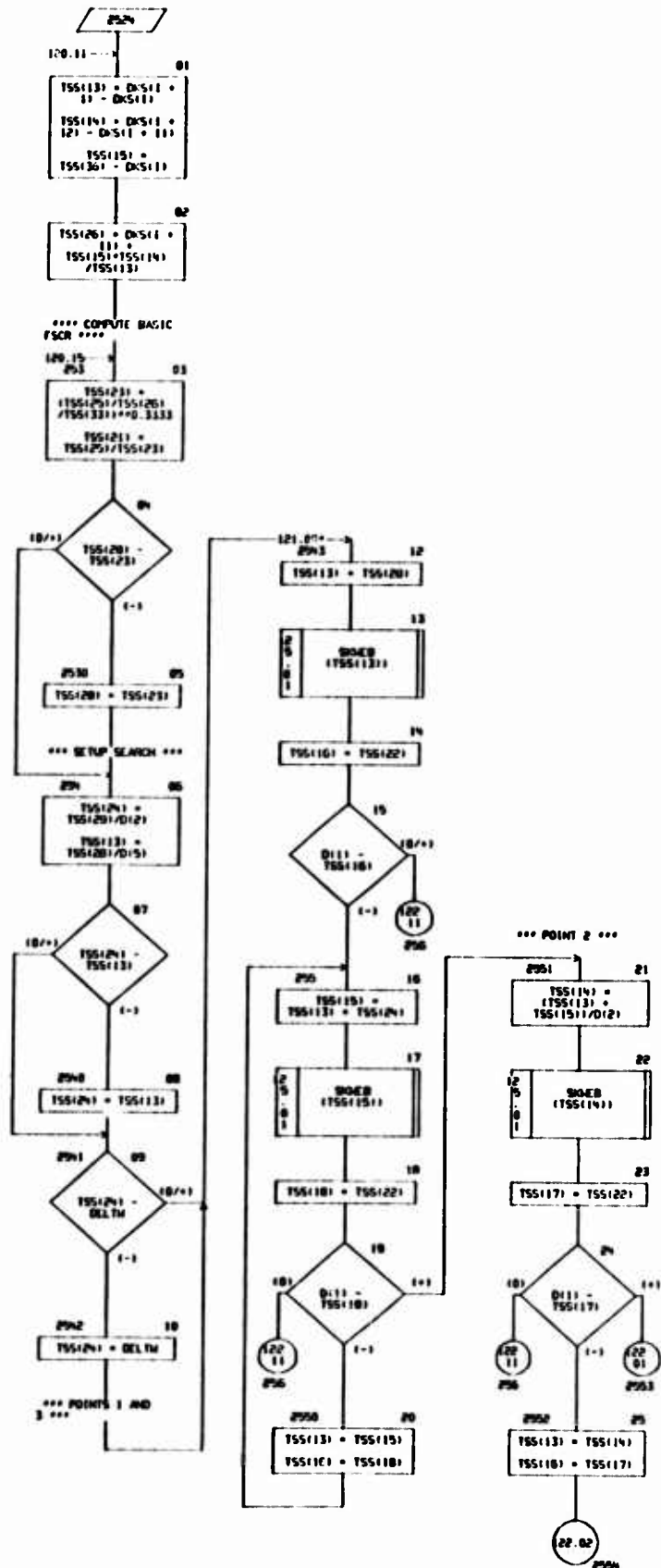


CHART TITLE - SUBROUTINE SINEBINO.DEPTH



05/11/74

CHART TITLE - SUBROUTINE SKEEP(WO,DEPTH)

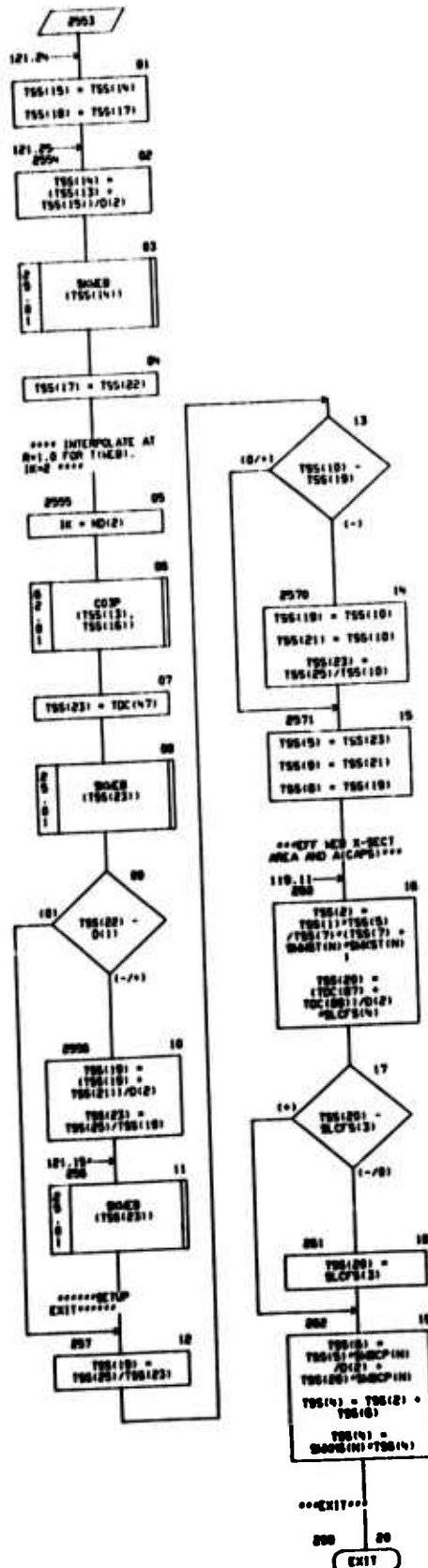


CHART TITLE - NON-PROFESSIONAL STATEMENTS

```
COMPST T(2000),D(2000),C(2000),N(100)
DIREMIGZ TDC(200),TSC(420),TSS(100),TWT(400),TSC(300),DC(100),
S(45T(2),S(95T(2),S(45T(2),
S(45T(2),S(45T(2),S(45T(2),
DS(20),S(45T(2)
EQUVALENT T(100),T(130),T(50),T(150),T(50),T(190),
ID(1),D(40),T(1),C(110),T(50),C(150),
(S(45T(1),D(40),S(45T(1),D(40),S(45T(1),D(37),
(S(45T(1),D(42),S(45T(1),D(42),S(45T(1),D(40),
ID(5),D(50),S(45T(1),D(47),
ID(1),D(42),
T(50),D(50),T(40),D(37),T(40),D(37),T(40),D(37)
```

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AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 124

CHART TITLE - INTRODUCTORY COMMENTS

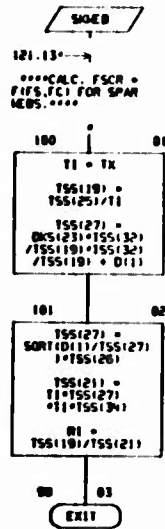
*****SUBROUTINE SHEB*****

SHEB CRITICAL STRESS EVALUATION

06/11/74

AUTOFLOW CHART SET - SAGEP WING AND EMPLOYMENT MODULE - PAGE 125

CHART TITLE - SUBROUTINE SAGEBITX



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AUTOFLOW CHART SET - SHEEP HING AND EMPERORAGE MODULE - PAGE 126

CHART TITLE - NON-PROCEDURAL STATEMENTS

COMMON T(2060),D(2060),CD(2000),ND(100)

DIMENSION DC(100),

TDC(200),TSC(420),TSS(100)

DKS(23)

EQUIVALENCE (TDC(1),T(13)(1)),(TSC(1),T(13)(1)),(TSS(1),T(13)(1)),

(DC(1),D(140)),(DKS(1),D(150)),

(T1,TSS(23)),(T1,TSS(22))

06/11/74

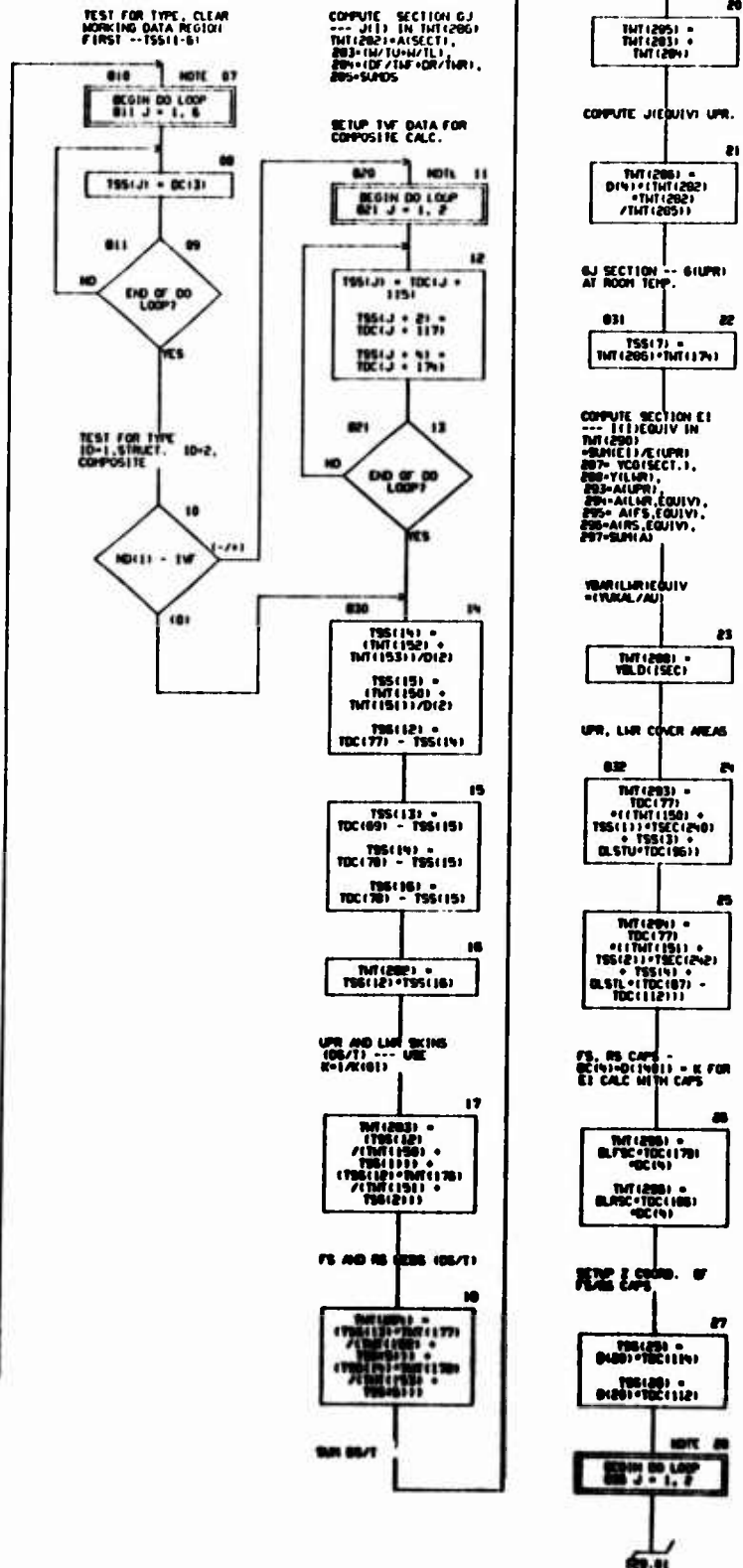
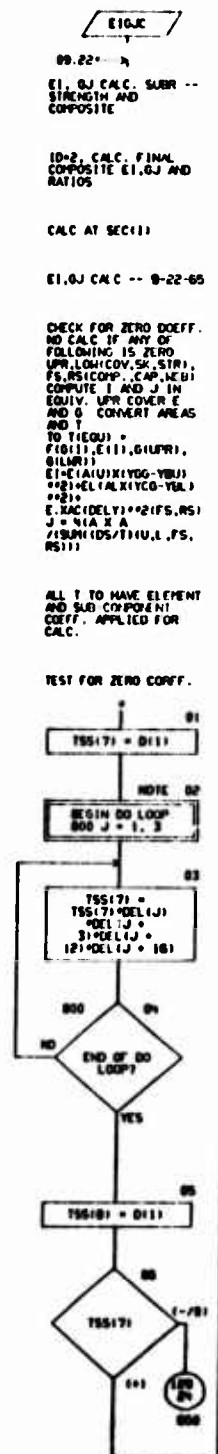
AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 127

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE EIGC*****

SECTION EI AND GJ STIFFNESS EVALUATION

CHART TITLE - SUBROUTINE E1GJC



```

128.06 --- 01
TSS(1) = 161 *
TDC(78) -
TDC(1) * 6811/D(2)
TSS(1) = 181 *
TSS(1) = 161 *
TSS(25)
02
TSS(1) = 201 *
TDC(78) - TSS(1) *
161 - TSS(26)
TSS(23) = TSS(1) *
201 - TSS(1) * 181
03
TSS(23) =
TSS(25) -
TSS(26)
10-1
03-1
04
TSS(24) =
TSS(23)/D(2)
TSS(1) = 181 *
TSS(1) = 181 *
TSS(24) - TSS(25)
TSS(1) = 201 *
TSS(1) = 201 *
TSS(24) - TSS(26)
05
END OF DO LOOP?
YES
NO
05-1
SUM COVER - CAP AREAS
06
TMT(297) =
TMT(293) =
TMT(294) =
TMT(295) =
TMT(296) =
06-1
YOUR U/L FOR FS,RS =
YD,YL
CD OF AREAS FROM PL
OF UPR COV. -- TAKE
NORMA) ABOUT UPR PL
035
07
TMT(289) =
YBUD(15C) *
TMT(293) *
TDC(78) -
TMT(288) *
TMT(294) *
TMT(295) * TSS(19) *
TSS(211)/D(2) *
TMT(296) * TSS(20) *
TSS(221)/D(2)
08
YCD SECTION -- LESS
FS,RS NEBS
TMT(287) =
TMT(289)/TMT(297)
08-1
COMPUTE E1 -- SUM
IN TMT(290)
0-22-05--- ADD (10)
UPR,LWR (10) LWR
(TEMP) = (10)UPR X
(AU/AL)
NO COEFF. OR KIE) IN
(10) CALC.
110) TEST FOR WF
TMT(184) =
TDC(101)
11
WF = ND(12)
1-781
12
TDC(118)
1-781
13
TMT(184) =
TSC(51)
13-1
UPR TO UPR,LWR X M
X E
129.114 --- 14
TMT(290) =
TDC(77) * TMT(184) *
TMT(184) * TMT(179)
* SORT(TDC(87)
/TDC(88))
14-1
UPR, LWR TRANSFER
TERMS
15
TMT(291) =
TMT(287) *
YBUD(15C)
TMT(291) =
TMT(291) * TMT(291)
* TMT(291)
16
TMT(292) =
TDC(78) -
TMT(288) *
TMT(287)
TMT(292) =
TMT(291) * TMT(292)
* TMT(179)
* TMT(292)
17
TMT(290) =
TMT(291) *
TMT(291) *
TMT(292)
18-1
FS, RS TRANSFER TERM
DO CALC IN LOOP
NOTE 19
BEGIN DO LOOP
0-1 J = 1, 2
20
TSS(23) = TMT(1) *
201/D(2)
TSS(24) =
TMT(287) -
TSS(1) * 181
TSS(25) = TSS(1) *
201 - TMT(287)
21
TMT(1) = 2001 *
TSS(23) * TMT(1) *
1781 * TSS(24)
* TSS(25) *
TSS(25) * TSS(25)
22
END OF DO LOOP?
YES
NO
23
SUM EQUIV. 1,
COMPUTE E1(15C)
24
TMT(292) =
TMT(292) *
TMT(291) *
TMT(290)
TSS(18) =
TMT(173) * TMT(292)
25
GJ/E1 RATIO
128.06 --- 26
050
TSS(19) =
TSS(17)/TSS(18)
26-1
GJ/(WF RECD) IN
TSC(167-77) --OLD
TWF) LOC.
STORE ALL DATA FROM
ROOT TO TIP STORE IN
COMPOSITE SECTION
27
I = ND(12) - 1 SEC
TSS(10) = D(1)
28
TDC(78)
1-781
30
30-1
31
TSS(10) = DC(3)
31-1
128.01

```

COMPOSITE DATA

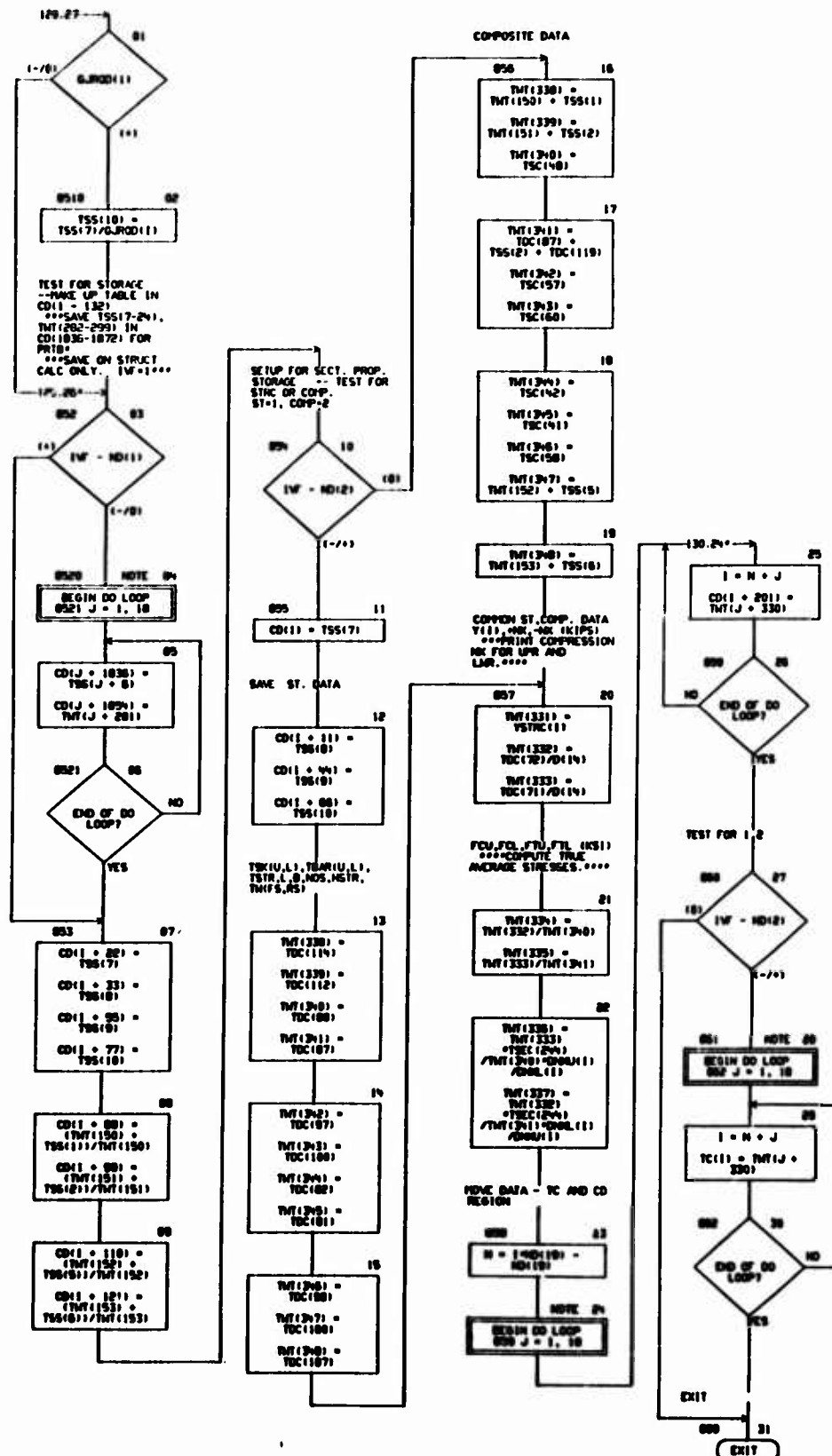


CHART TITLE - NON PROCEDURAL STATEMENTS

```
COMMON T(2060),D(2060),CD(2000),ND(110)
DIMENSION DC(100),
TDC(200),TSC(420),TSS(100),TWT(400),TSEC(300),
TC(340),YSTRC(11),
GJRCD(11),DEL(30),
YBUD(11),YBLD(11),
DARU(11),DRU(11)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(154)),(TSS(1),T(196)),
(IDC(1),D(140)),(TWT(1),CD(110)),(TSEC(1),CD(150)),
(TC(1),T(160)),(DARU(1),D(193)),(DRU(1),D(1942)),
(YBUD(1),T(1679)),(YBLD(1),T(1690)),(YSTRC(1),TSEC(166)),
(GJRCD(1),T(1660)),
(IDEL(1),TWT(25)),
(IDLFS,DEL(14)),(DLRSC,DEL(118)),(DLSTU,DEL(3)),(DLSTL,DEL(16)),
(TSEC,ND(55)),(TW,ND(51)),(I,ND(30))
```

06/11/74

AUTOFLOW CHART SET - SHEEP WIND AND EXPERIENCE PHASE - PAGE 182

CHART TITLE - INTRODUCTORY COMMENTS

.....

*****SUBROUTINE WIND*****

SECTION TOPSIA: STIFFNESS RIGHT EVALUATION

.....

CHART TITLE - SUBROUTINE WCAL

WCAL

10.01---A

WFL SUBR -- J OR TW
COMPARISON

REVISION -- 01-11-86
 -- NEW LINEAGE
 REVISION -- 12-7-85
 -- NEW STORAGE FORMAT
 REF. TO T.D.C.D. BLOCKS
 10-26-85 -- J OR TW
 LOGIC

6JAF(1) RECD IN
 TDC(74)
 FOR EQUIV. TW, CALC.
 TW AND SET
 TDC(74)=TW(1) RECD.
 8EIGJ = EIGJ CALC ID.
 1 = STRUCT.
 2 = COMPOSITE. SET AT
 1

6J STRUCT IN TSS(7),
 E1 IN TSS(8).
 X-SEC A(1) IN
 TMT(202), P(1) MUST
 BE CALC.
 COMPUTE J(WF),
 J(STRUCT) -- EQUIV.
 UPN COVER 0.

700 01
 TSS(1) =
 TSS(7)/TMT(174)
 TSS(2) =
 TDC(74)/TMT(174)
 TMT(104) =
 TMT(202)/D(50)
 *TMT(202)

05IU, L.FS, AS)

02
 TSS(4) =
 (TMT(150) +
 TMT(151))/D(12)
 TSS(5) =
 (TMT(152) +
 TMT(153))/D(12)
 TMT(61) =
 TDC(77) - TSS(5)

03
 TMT(62) = TMT(61)
 TMT(63) =
 TDC(60) - TSS(4)
 TMT(64) =
 TDC(70) - TSS(4)

04
 04(1) = TW/JT
 (10)

33.11
20010-2 -- EQUIV. TW
COMPARISON --
COMPUTE TW

100 05
 TSS(3) =
 TMT(61) +
 TMT(62) + TMT(64)
 TDC(74) =
 TSS(2)+TSS(3)
 /TMT(104)

SETUP DELTA TW IN
 TEST/MOVE BLOCK
 UPPER SKINS

06
 TMT(65) =
 TDC(74) -
 TMT(150)

LOWER SKINS

07
 TMT(66) =
 (TDC(74)+TMT(176)
) - TMT(151)

FRONT SPAR WEB

08
 TMT(67) =
 (TDC(74)+TMT(177)
) - TMT(152)

REAR SPAR WEB

09
 TMT(68) =
 (TDC(74)+TMT(178)
) - TMT(153)

GO TO COMPUTE
 POPULATES -- ASSUME
 NO REDUCTION IN X-SEC
 AREA OR P

35.00
150

10-1 -- EQUIV. J
 COMPARISON -- COMPUTE
 DELTA J
 DELTA J RECD IN
 TMT(106) = JAW - J STRC

133 08
 200
 TMT(105) =
 TSS(2) - TSS(1)
 12
 TMT(105)
 11
 130
 27
 100
 24.01
 201

CHART TITLE - SUBROUTINE WCA

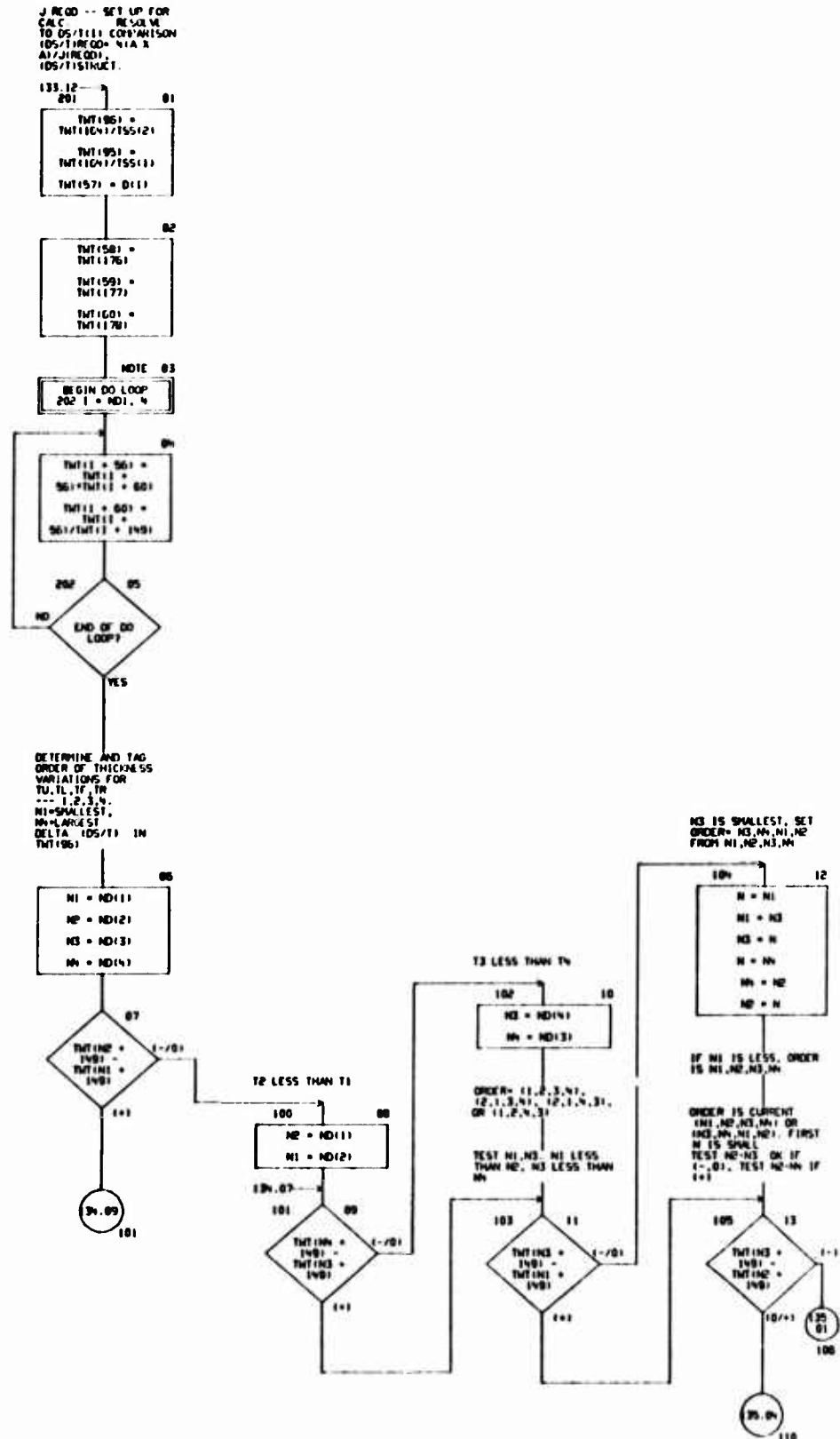
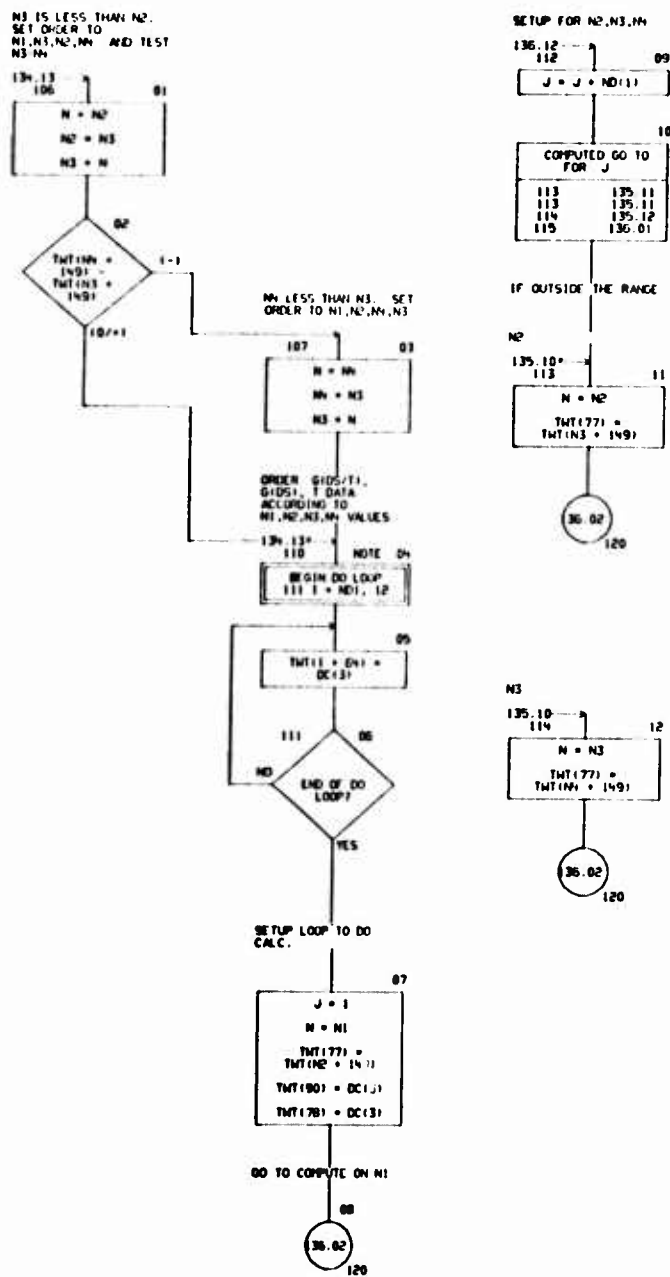


CHART TITLE: SUBROUTINE WCAL



```

135.10 --
115
0
[ N = NN ]
02
SETUP AND COMPUTE --
DATA ON N, STORED ON
TWT(95) = DS(TIMECO),
TWT(95) = DS(TIMELOC),
DS(1) X G11/G10,C.1
DS(1)X KIG)
135.00 --
120
02
[ TWT(J) = 70) =
TWTIN = 60) ]
01
[ DS(1) X KIG1)/T(1) ]
04
[ TWT(J) = 82) =
TWTIN = 56) ]
04
T(1)
[ TWT(J) = 85) =
TWTIN = 149) ]
05
SUM DS(1) LESS
(DS(T(1)) - DS(T(1-1))
[ TWT(95) =
TWT(95) - TWT(J) +
70) - TWT(70) ]
05
SUM DS(1) X KIG)
[ TWT(J) = 80) =
TWT(J) = 85) ]
07
[ COMPUTED GO TO
FOR J ]
121 135.00
121 135.00
121 135.00
123 135.14
IF OUTSIDE THE RANGE
N1,N2,N3 -- COMPUTE
SUM(DS(1)/T(1-1))-
SUM(DS(1)/T(1))
135.07 --
121
00
[ TWT(J) = 72) =
TWT(J) = 85) ]
09
DS(1)/T(1) - DS(1)/T(1-1)
[ TWT(70) = TWT(J) +
80)/TWT(77) ]
105/THREED IS
POSITIVE
COMPUTE NEW
DS(1)STRUCTURE
T(1)
TEST DS(1)CALC) WITH
DS(THREED) = 0,0 OK, -
DO NEXT N

```

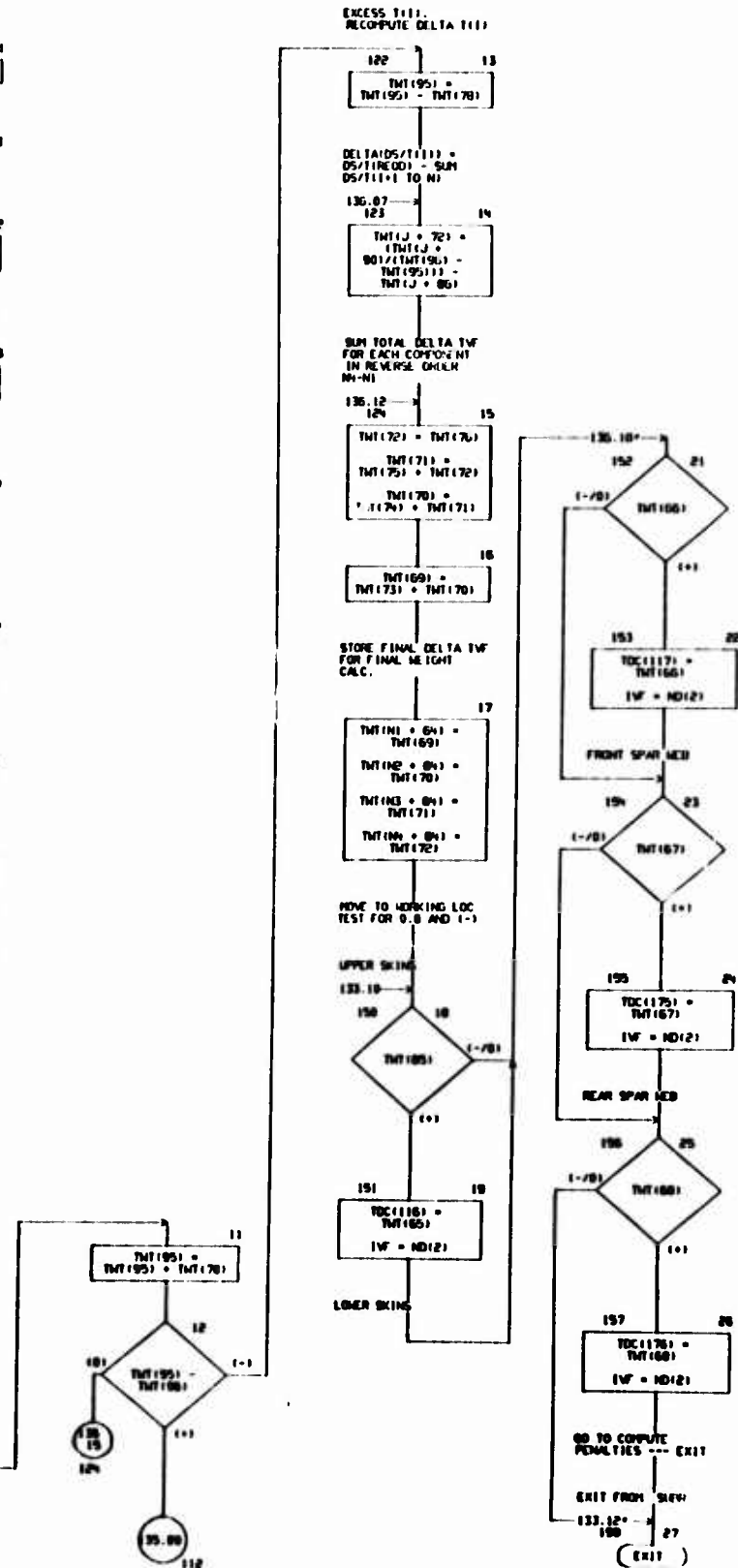


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON T(2000),D(2000),CD(2000),ND(100)
DIMENSION DC(100),
TDC(200),TSC(420),TSS(100),TWT(400),TSEC(300),YSTRC(111),
SMBD(23),GWH(3),SMBND(2),SACE(2)
EQUIVALENCE (TDC(1),T(134)),(TSC(1),T(154)),(TSS(1),T(186))
EQUIVALENCE (GWH(1),D(80)),(SMBD(1),D(330)),(SMBND(1),D(32)),
(SACE(1),D(410)),(SMBND(1),D(414)),(SACE(1),D(416)),
(SMBND(1),D(422)),(DC(1),D(140))
EQUIVALENCE (TWT(1),CD(110)),(TSEC(1),CD(150)),
(YSTRC(1),CD(107))
EQUIVALENCE (GWH(1),ND(57)),(ND(56)),(TSEC(1),ND(55)),
(TVJT,ND(53)),(TB,ND(52)),(TVF,ND(51)),(TVF2,ND(50)),(IN,ND(44)),
(IN3,ND(43)),(INP,ND(42)),(IN1,ND(41)),(IN,ND(31)),(J,ND(30)),
(IORS,ND(24)),(IDS,ND(23)),(ND1,ND(1))

```


06/11/74

AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 138

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE INITIAL*****

SECTION/PANEL HEIGHT EVALUATION



 10.11 4 17.5

 PANEL WT CALC. SHEET

 -- TAIL LIPS TO

 MT PIN, RIM IN, BOLT

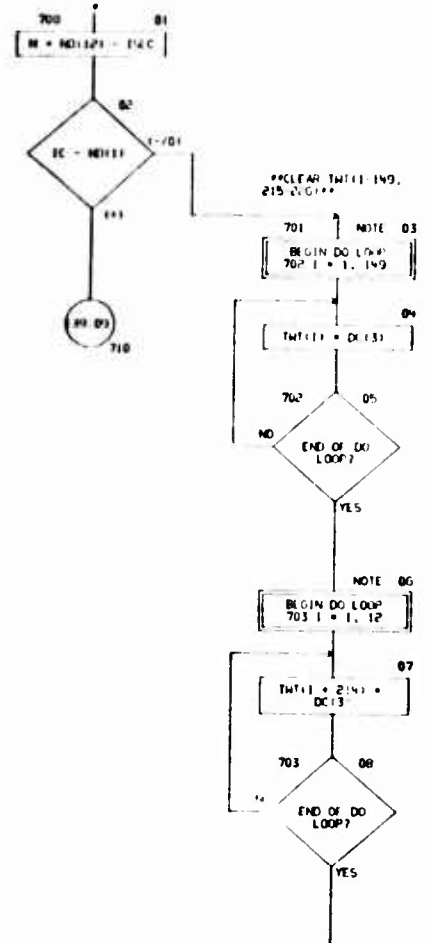
 SHEET

 IC-1 DO APP A ONLY

 IC-2 DO PNL WT TOO

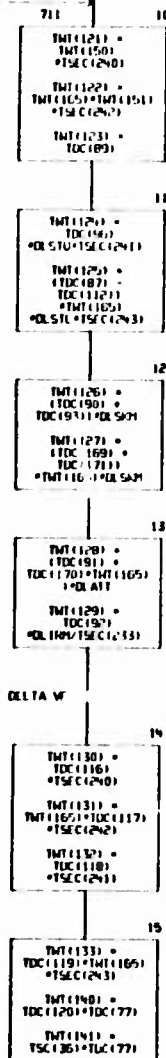
 SETUP IC

 TIP. IC-1



139.02
710

INT 1151 -
ADSYSTRITISECI -
YSRITISECI - 111



DELTA W

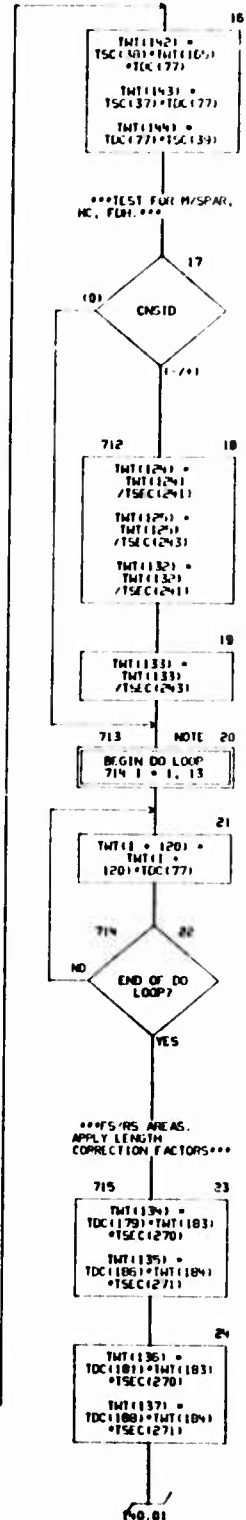
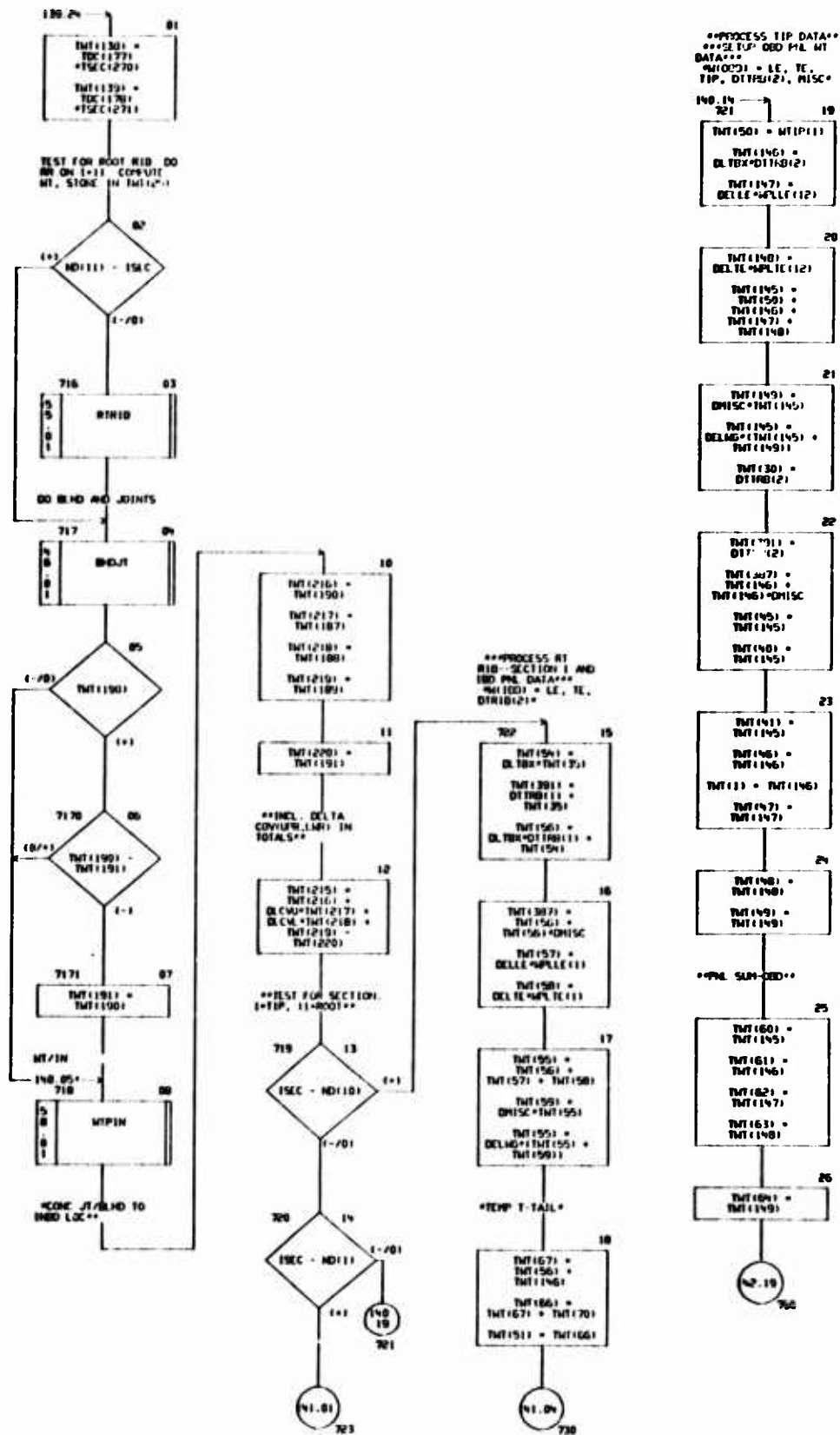


CHART TITLE - SUBROUTINE MICAL




```

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        11 --> 12[12]
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```

CHART TITLE - SUBROUTINE MTCAL

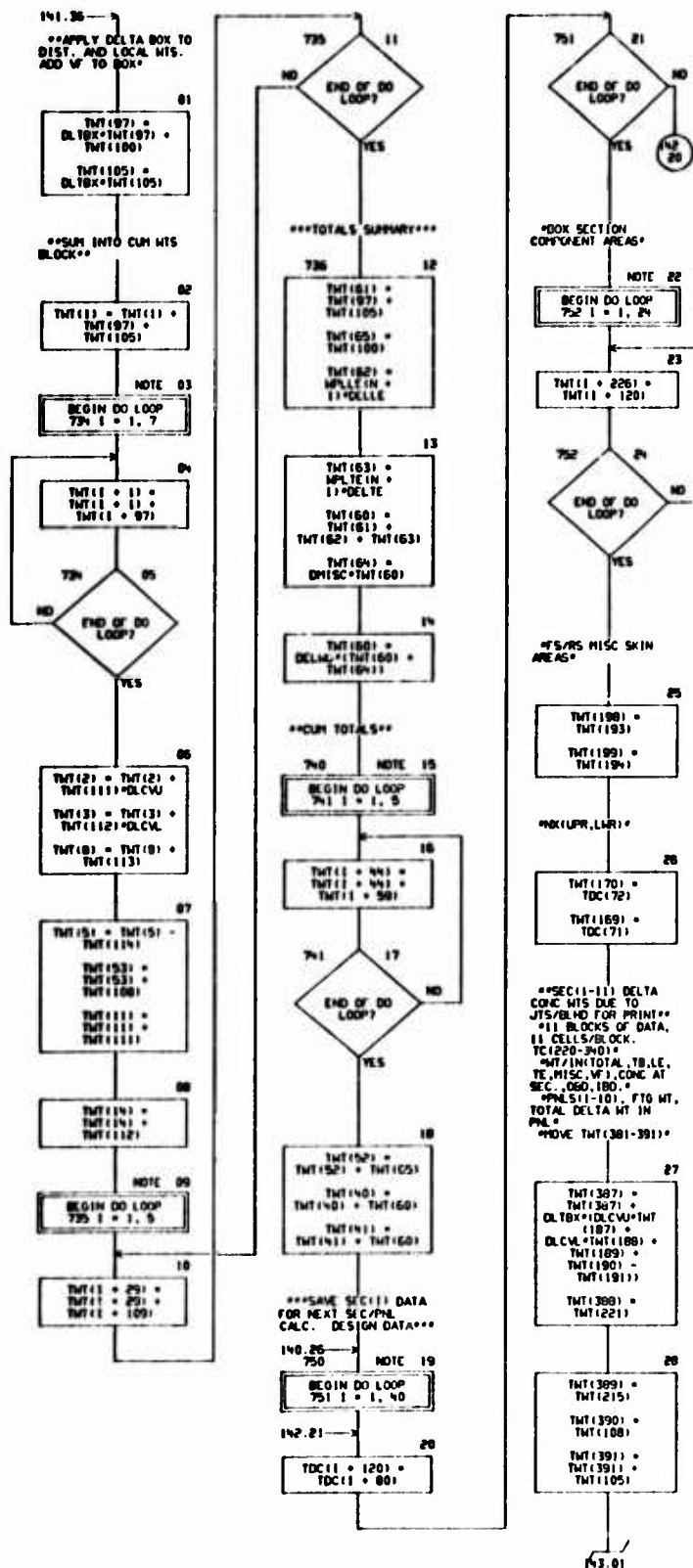


CHART TITLE - SUBROUTINE WICAL

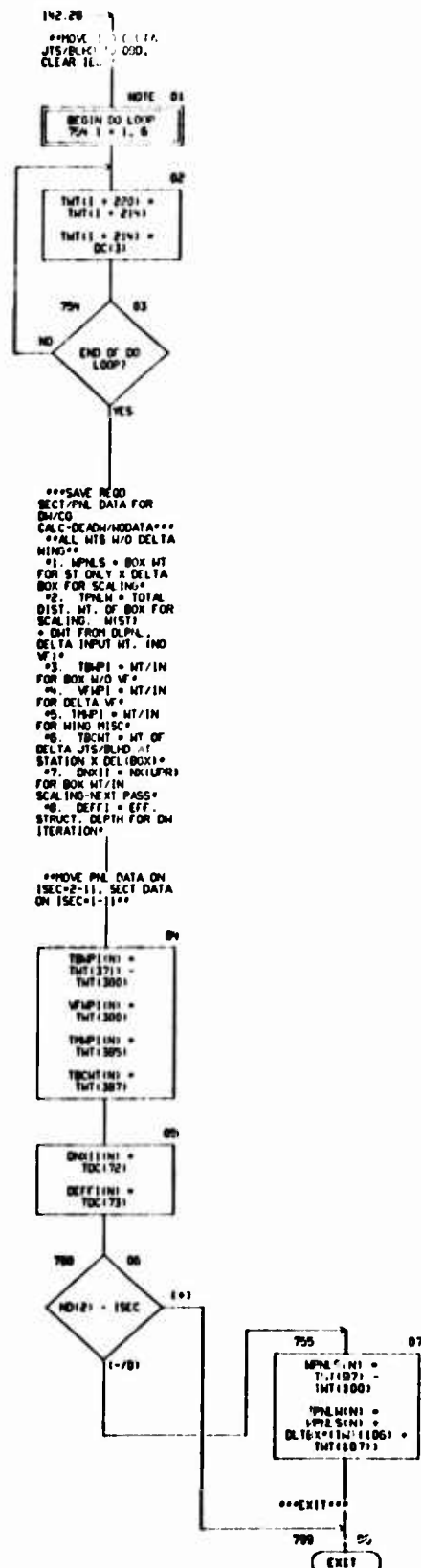


CHART TITLE - NEW PROCEDURAL STATEMENTS

```

COMMON T(2000),D(2000),CD(2000),ND(100)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),
          TWT(400),TSEC(300),TC(340),
          YSTRC(111),DEL(30),DLPAL(10),
          WALLE(12),WPLTE(12),
          DTIP(4),DTTRB(2),DPCOL(10),DTBX(32),
          WPLS(11),TTC(111),TBCMT(11),
          TBMP(11),WMP(11),TSP(11),
          SHOPS(2),
          DNX(111),DEFF(111)
EQUIVALENCE (DC(1),D(140)),(TDC(1),T(134)),(TSC(1),T(154)),
          (TSS(1),T(196)),(TWT(1),CD(110)),(TSEC(1),CD(150)),
          (SDRNO,TWT(175)),(DLPAL(1),T(177)),
          (YSTRC(1),TSEC(166)),(CONSID,D(46)),(DTIP(1),T(64)),
          (DTBX(1),D(100)),(DTTRB(1),T(66)),(DPCOL(1),T(220)),
          (WALLE(1),T(205)),(WPLTE(1),T(207)),(TC(1),T(960)),
          (WPLS(1),T(65)),(TTC(1),T(66)),(TBCMT(1),T(70)),
          (TBMP(1),T(75)),(WMP(1),T(76)),(TSP(1),T(78)),
          (DNX(1),T(73)),(DEFF(1),T(80)),
          (TSEC,ND(95)),(TC,ND(40)),(TDC,ND(11)),(TDC,ND(20)),(TDC,ND(29))
EQUIVALENCE (DEL(1),TWT(25)),(DELNG,T(107)),(DLTBX,T(100)),
          (DELLE,T(109)),(DELTE,T(190)),(DMISC,T(191)),
          (DLCVU,DEL(1)),(DLSTU,DEL(3)),
          (DLCLV,DEL(4)),(DLSTL,DEL(6)),
          (DLSPH,DEL(7)),(DLATT,DEL(8)),
          (DLTMM,DEL(9)),(DLTMM,DEL(10)),(DLTMM,DEL(11)),
          (SHOPS(1),D(410)),
          (DELFS,DEL(13)),(DLFSC,DEL(14)),(DLFSH,DEL(16)),
          (DELRS,DEL(17)),(DLRSC,DEL(18)),(DLRSH,DEL(20))

```

08/11/74

AUTOFLON CHART SET - SHEEP HING AND EMPYRAGE MODULE - PAGE 145

CHART TITLE - INTRODUCTORY COMMENTS

.....

*****SUBROUTINE BMDUT*****

BULKHEAD AND JOINT HEIGHT EVALUATION

.....

CHART TITLE - SUBROUTINE BOUT

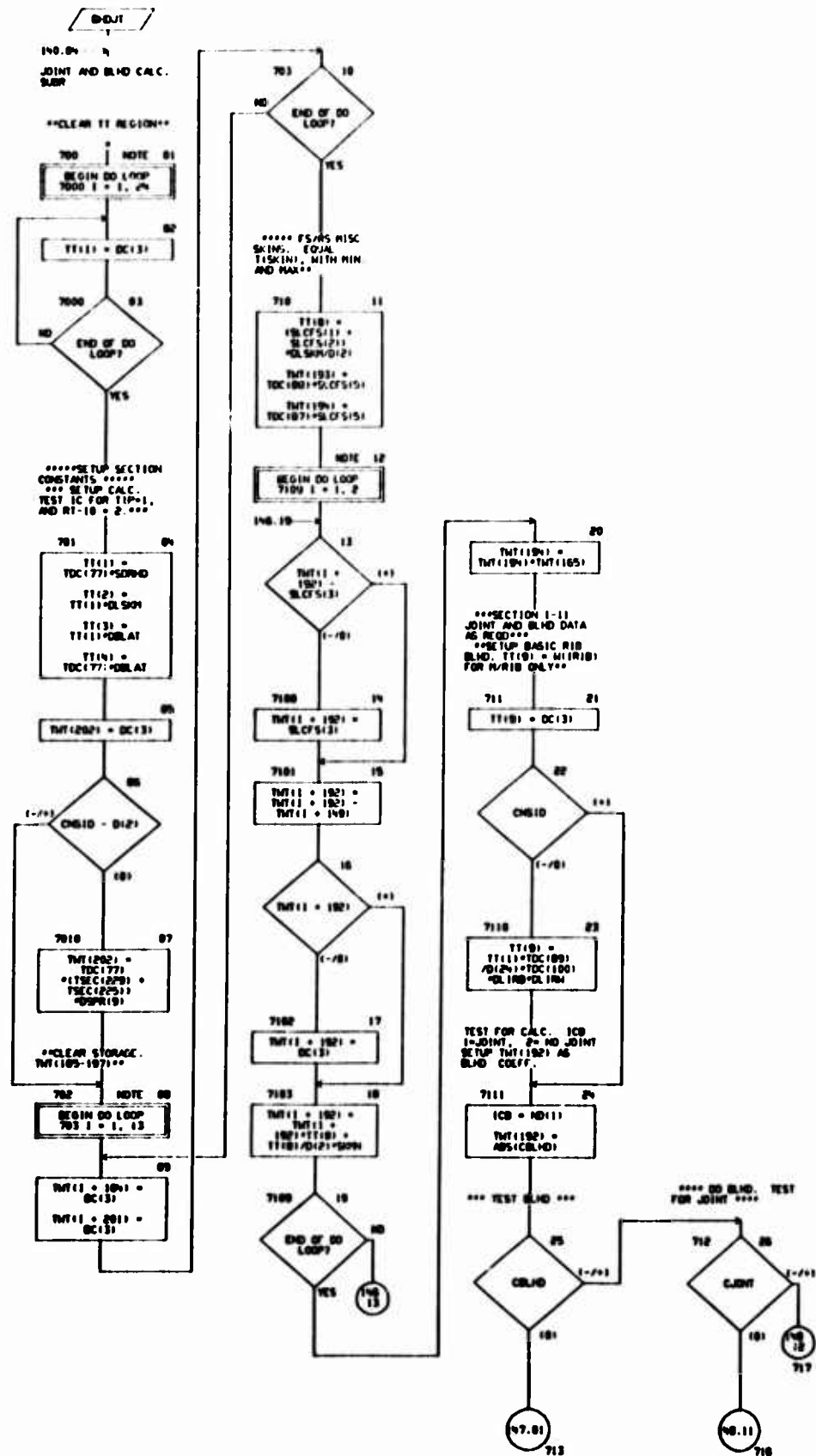
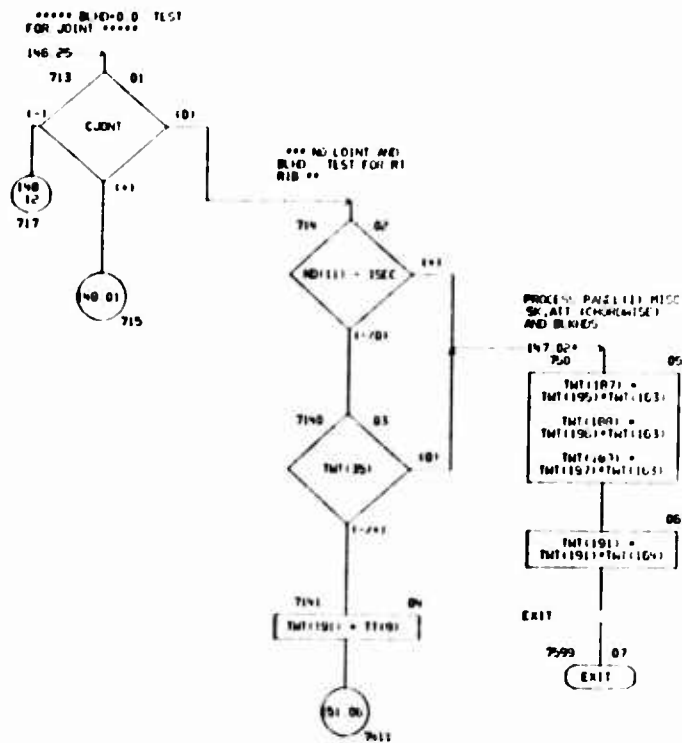


CHART TITLE - SUBROUTINE PROJ



***** RIB *****
JOINT: TEST FOR RIB *****
RIB *****

147 01
715
ND(11) = 15C
100
100
7150
TMT(2)
100
7151
TMT(19) = T1(9)
100

*** SPLICE MT DATA =
LP FOR ONE SIDE
ONLY ***

148 01
730
TMT(20) =
D(5) * T1(1)
T1(15) =
D(5) * T1(2) + D(1)
04
05
T1(16) =
TDC(7) * T1(15)
06
*** CALC D(1) * T1
AND TEST WITH MIN
AND MAX D *****

06
TMT(20)
100
149 15
731
7300
07
TMT(20) =
D(5) * T1(15) + D(5) * T1(16)
+ D(1) * T1(15)
TMT(20) =
T1(16) / TMT(20)
08
D(1) * T1(20)
100
149 15
7303
7301
09
D(5) * T1(2) =
TMT(20)
100
149 15
731
7302
10
TMT(20) =
D(5) * T1(2)
149 15
731

716
148 26
11
ICB = ND(2)
148 26
717
12
TMT(19) = T1(9)
*** SETUP BLIND TAG,
ICB ***

723
13
T1(5) =
D(5) * T1(107)
T1(6) =
D(5) * TMT(15)
T1(7) =
D(5) * TMT(15) + TMT(16)
14
T1(5) =
D(1) * T1(1)
100
149 15
731
15
T1(5) = D(1) * T1(1)
16
NOTE
BEGIN DO LOOP
X=1, 2
17
T1(5) = 51 -
D(1) * T1(2)
100
149 15
731
18
T1(5) = 51 -
D(1) * T1(2)
19
END OF DO
LOOP
YES
NO
***** CALC BLIND
MT *****

20
TMT(190) =
D(1) * T1(5) +
D(1) * T1(7) +
D(1) * T1(16) +
T1(7)
TMT(190) =
T1(5) +
TMT(190) * T1(1)
+ D(1) * TMT(192)
BLIND MISC. IF NO
JOINT, IT WILL BE 2

7230
21
ND(11) = ICB
100
149 01
721
148 04
730



```

graph TD
    1933((1933)) --> 7330{7330}
    7330 -- NO --> 1939((1939))
    7330 -- YES --> 7331[7331]
    7331 --> 7332[7332]
    7332 --> 7333[7333]
    7333 --> 7334[7334]
    7334 --> 7335[7335]
    7335 --> 7336[7336]
    7336 --> 7337{7337}
    7337 -- NO --> 7338[7338]
    7337 -- YES --> 7339[7339]
    7338 --> 7340[7340]
    7339 --> 7341[7341]
    7340 --> 7342[7342]
    7341 --> 7343[7343]
    7342 --> 7344[7344]
    7343 --> 7345[7345]
    7344 --> 7346[7346]
    7345 --> 7347[7347]
    7346 --> 7348[7348]
    7347 --> 7349[7349]
    7348 --> 7350[7350]
    7349 --> 7351[7351]
    7350 --> 7352[7352]
    7351 --> 7353[7353]
    7352 --> 7354[7354]
    7353 --> 7355[7355]
    7354 --> 7356[7356]
    7355 --> 7357[7357]
    7356 --> 7358[7358]
    7357 --> 7359[7359]
    7358 --> 7360[7360]
    7359 --> 7361[7361]
    7360 --> 7362[7362]
    7361 --> 7363[7363]
    7362 --> 7364[7364]
    7363 --> 7365[7365]
    7364 --> 7366[7366]
    7365 --> 7367[7367]
    7366 --> 7368[7368]
    7367 --> 7369[7369]
    7368 --> 7370[7370]
    7369 --> 7371[7371]
    7370 --> 7372[7372]
    7371 --> 7373[7373]
    7372 --> 7374[7374]
    7373 --> 7375[7375]
    7374 --> 7376[7376]
    7375 --> 7377[7377]
    7376 --> 7378[7378]
    7377 --> 7379[7379]
    7378 --> 7380[7380]
    7379 --> 7381[7381]
    7380 --> 7382[7382]
    7381 --> 7383[7383]
    7382 --> 7384[7384]
    7383 --> 7385[7385]
    7384 --> 7386[7386]
    7385 --> 7387[7387]
    7386 --> 7388[7388]
    7387 --> 7389[7389]
    7388 --> 7390[7390]
    7389 --> 7391[7391]
    7390 --> 7392[7392]
    7391 --> 7393[7393]
    7392 --> 7394[7394]
    7393 --> 7395[7395]
    7394 --> 7396[7396]
    7395 --> 7397[7397]
    7396 --> 7398[7398]
    7397 --> 7399[7399]
    7398 --> 7400[7400]
    7399 --> 7401[7401]
    7400 --> 7402[7402]
    7401 --> 7403[7403]
    7402 --> 7404[7404]
    7403 --> 7405[7405]
    7404 --> 7406[7406]
    7405 --> 7407[7407]
    7406 --> 7408[7408]
    7407 --> 7409[7409]
    7408 --> 7410[7410]
    7409 --> 7411[7411]
    7410 --> 7412[7412]
    7411 --> 7413[7413]
    7412 --> 7414[7414]
    7413 --> 7415[7415]
    7414 --> 7416[7416]
    7415 --> 7417[7417]
    7416 --> 7418[7418]
    7417 --> 7419[7419]
    7418 --> 7420[7420]
    7419 --> 7421[7421]
    7420 --> 7422[7422]
    7421 --> 7423[7423]
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    7423 --> 7425[7425]
    7424 --> 7426[7426]
    7425 --> 7427[7427]
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    7429 --> 7431[7431]
    7430 --> 7432[7432]
    7431 --> 7433[7433]
    7432 --> 7434[7434]
    7433 --> 7435[7435]
    7434 --> 7436[7436]
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    7437 --> 7439[7439]
    7438 --> 7440[7440]
    7439 --> 7441[7441]
    7440 --> 7442[7442]
    7441 --> 7443[7443]
    7442 --> 7444[7444]
    7443 --> 7445[7445]
    7444 --> 7446[7446]
    7445 --> 7447[7447]
    7446 --> 7448[7448]
    7447 --> 7449[7449]
    7448 --> 7450[7450]
    7449 --> 7451[7451]
    7450 --> 7452[7452]
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    7455 --> 7457[7457]
    7456 --> 7458[7458]
    7457 --> 7459[7459]
    7458 --> 7460[7460]
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    7460 --> 7462[7462]
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    7462 --> 7464[7464]
    7463 --> 7465[7465]
    7464 --> 7466[7466]
    7465 --> 7467[7467]
    7466 --> 7468[7468]
    7467 --> 7469[7469]
    7468 --> 7470[7470]
    7469 --> 7471[7471]
    7470 --> 7472[7472]
    7471 --> 7473[7473]
    7472 --> 7474[7474]
    7473 --> 7475[7475]
    7474 --> 7476[7476]
    7475 --> 7477[7477]
    7476 --> 7478[7478]
    7477 --> 7479[7479]
    7478 --> 7480[7480]
    7479 --> 7481[7481]
    7480 --> 7482[7482]
    7481 --> 7483[7483]
    7482 --> 7484[7484]
    7483 --> 7485[7485]
    7484 --> 7486[7486]
    7485 --> 7487[7487]
    7486 --> 7488[7488]
    7487 --> 7489[7489]
    7488 --> 7490[7490]
    7489 --> 7491[7491]
    7490 --> 7492[7492]
    7491 --> 7493[7493]
    7492 --> 7494[7494]
    7493 --> 7495[7495]
    7494 --> 7496[7496]
    7495 --> 7497[7497]
    7496 --> 7498[7498]
    7497 --> 7499[7499]
    7498 --> 7500[7500]
    7499 --> 7501[7501]
    7500 --> 7502[7502]
    7501 --> 7503[7503]
    7502 --> 7504[7504]
    7503 --> 7505[7505]
    7504 --> 7506[7506]
    7505 --> 7507[7507]
    7506 --> 7508[7508]
    7507 --> 7509[7509]
    7508 --> 7510[7510]
    7509 --> 7511[7511]
    7510 --> 7512[7512]
    7511 --> 7513[7513]
    7512
```

CHART TITLE - SCHEDULETIME (P0007)

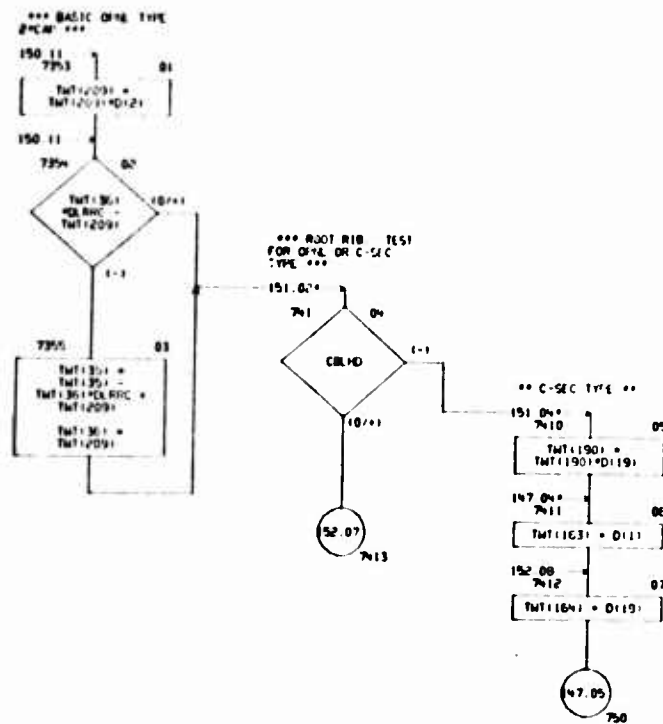
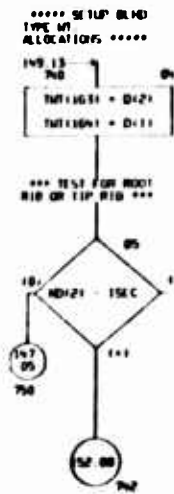
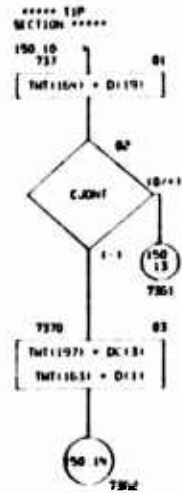


CHART TITLE - SURRENTINE PRUIT

*** TEST FOR ROOT
RID OR TIP RID ***

TEST FOR RT RID

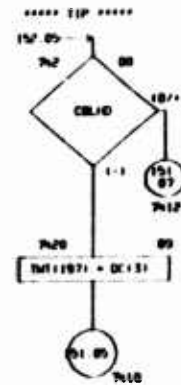
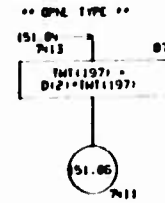
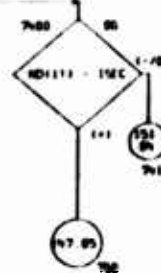


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON T(2060),D(2060),CD(2060),ND(100)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),TMT(400),TSEC(300),
T(120),DEL(130),
DISPR(9),DEL0(11),OSPL(110),
SLCFS(4),
OSPL0(7)
EQUIVALENCE (TDC(1),T(134(1)),TSEC(1),T(154(1)),TSS(1),T(196(1)),
TDC(1),D(140(1)),TMT(1),CD(110(1)),TSEC(1),CD(150(1)),
T(1),T(1317)),DEL(1),TMT(25(1)),
ICJMT,T(120(1)),ICBLND,TMT(200(1)),ICNSID,D(40(1)),ISQW,D(170(1)),
OLARC,DEL(22(1)),
ISQWD,TMT(175(1)),
OLSQW,DEL(7(1)),DELAT,DEL(12(1)),OLIRD,DEL(9(1)),OLITSA,DEL(110(1)),
OSPL0(1),D(150(1)),DISPR(1),D(14(1)),SLCFS(1),D(1470(1)),
OLBLD(1),D(1470(1)),OSPL(1),D(1450(1)),
TIC,ND(40(1)),TICB,ND(47(1)),TSEC,ND(55(1))

```

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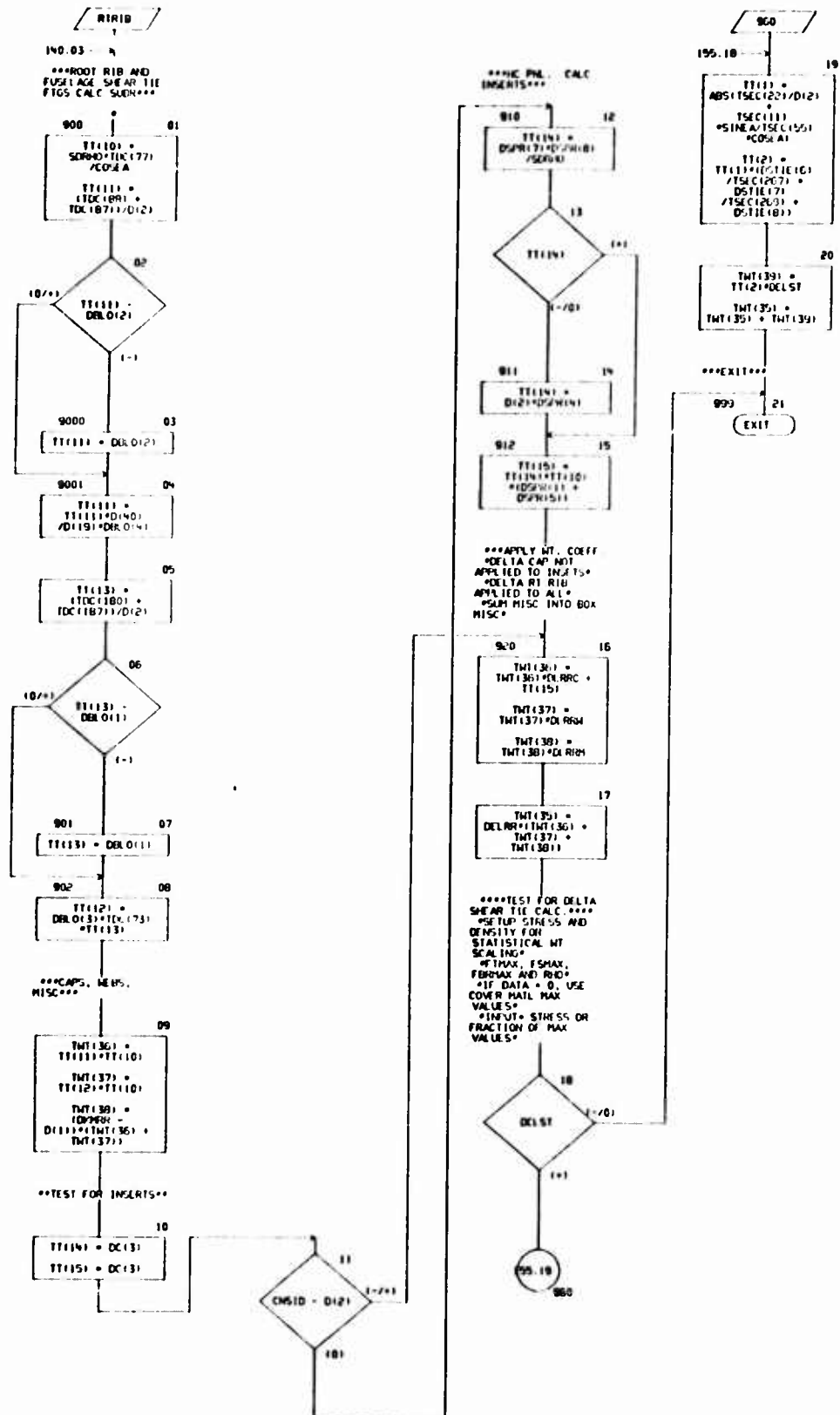
AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE MODULE - PAGE 194

CHART TITLE - INTRODUCTORY COMMENTS

****SUBROUTINE RTRIB****

ROOT RIB AND SHEAR TIE HEIGHT EVALUATION

CHART TITLE - SUBROUTINE RTRIB



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AUTOFLOW CHART SET - SLEEP WING AID EXPERIENCE MODULE - PAGE 156

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
COMMON T(2060),D(2060),CD(2000),ND(100)
DIMENSION DC(100),TDC(200),TSC(420),TSS(100),TNT(400),TSEC(300),
TT(2),
DEL(30),
DBLO(11),DSPR(9),
DSTIE(8)
EQUIVALENCE (DC(1),D(1401)),(TDC(1),T(1341)),(TSC(1),T(1541)),
(TSS(1),T(1961)),(TNT(1),CD(1101)),(TSEC(1),CD(1501)),
(TT(1),T(1317)),(DEL(1),TNT(251)),(DELST,D(1520)),
(DELAP,DEL(21)),(DLRRC,DEL(22)),(DLRRH,DEL(23)),(DLRRH,DL(24)),
(DSTIE(1),D(1521)),(DBLO(1),D(1473)),(DSPR(1),D(1462)),
(CNS10,D(1461)),
(DKRRR,D(169)),(SDRRH,TNT(175)),
(COSEA,T(76)),(SINEA,T(75))
```


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AUTOFLOW CHART SET - SHEEP WINGS AND EMPERORAGE MODULE - PAGE 157

CHART TITLE - INTRODUCTORY COMMENTS

```
*****  
*****SUBROUTINE WIPIN*****  
**SECTION HEIGHT PER INCH EVALUATION**  
*****
```

[illegible]

CHART TITLE - SLEW/OUTLINE WIPIN

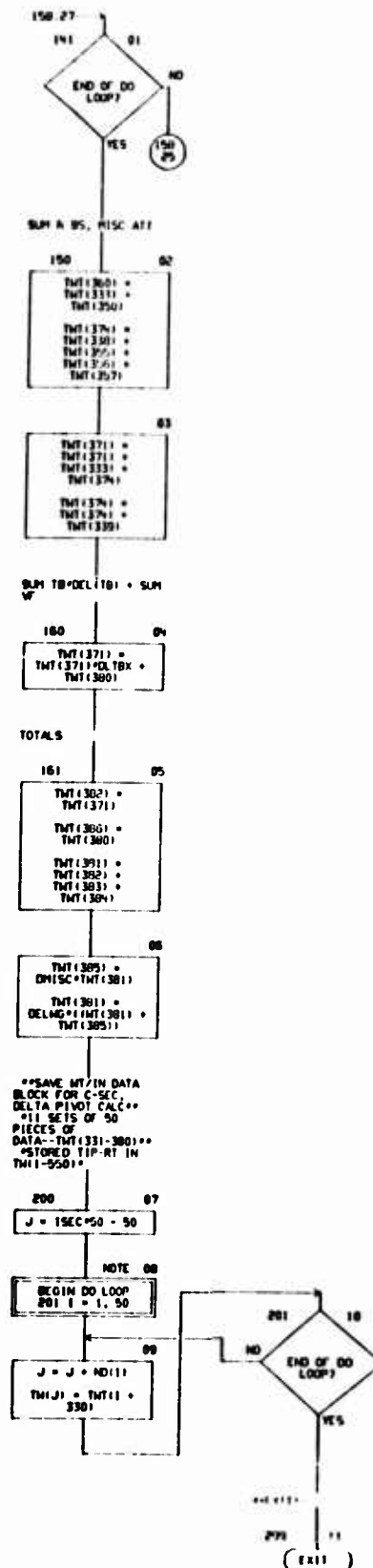


CHART TITLE - NON PROCEEDURAL STATEMENTS

```
COMMON TCOM(7120)  
DIMENSION T(2000),D(2000),CD(2000),ND(100),TMT(900),  
DC(100),TDC(200),TSC(420),TSS(100),TMT(400),TSEC(300),  
DEL(30),  
SHAPE(2),  
MPLE(11),MPTE(11)  
EQUIVALENCE (T(1),TCOM(1),ID(1),T(1200),ICD(1),TCOM(121)),  
(ND(1),TCOM(121),TMT(1),TCOM(122),DC(1),DC(ND(1)),  
(TDC(1),T(134),TSC(1),T(134),TSS(1),T(136)),  
(TMT(1),CD(110),TSEC(1),CD(150),  
(SC(ND),TMT(175),  
(SHAPE(1),D(410),  
(MPLE(1),T(263),MPTE(1),T(274),  
(DEL(1),TMT(25),ID(1),T(189),ID(1),T(190),  
(DEL(ND),T(187),ID(1),T(188),ID(1),T(191),  
(TSEC,ND(55),IN,ND(31),IJ,ND(30))
```

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AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE PLAKE - PAGE 181

CHART TITLE - INTRODUCTORY CONTENTS

*****SUBROUTINE CGP*****

PARABOLIC CURVE FIT AND EVALUATION

CHART TITLE - SUBROUTINE CG3P(X,Z)

CG3P

35.13 - 4

L.O. 3 POINT FLT
SUBROUTINE -- FINDS
MIN OR INTERPOLATES
FOR
REVISION -- 01-07-66
-- NEW FORMAT FOR
SIR-PINOT-- REVISE
LINK

X AT Y=1

IN=ND(99)=TYPE ID
IL=ND(40)=MIN TYPE
IL=1, LEFT, IL=2,
MIN, IL=3, RIGHT

MOVE DATA

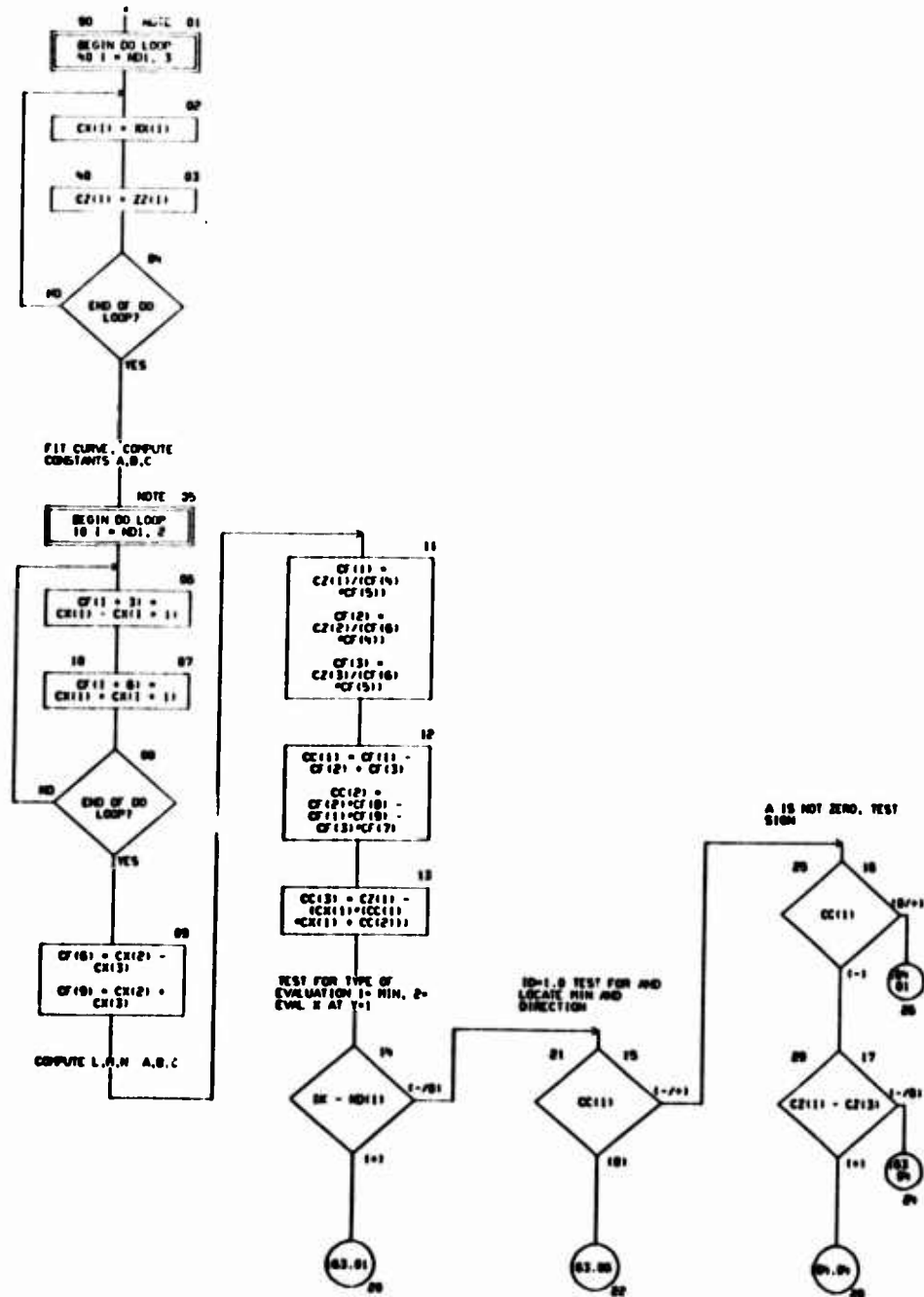


CHART TITLE - SUBROUTINE CCBP1XN,221

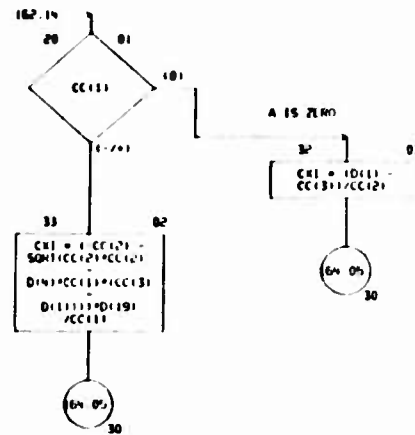
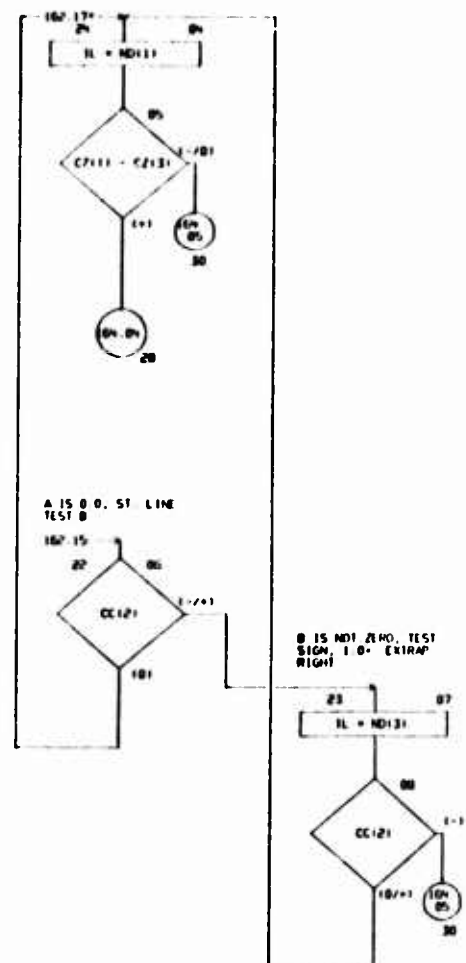
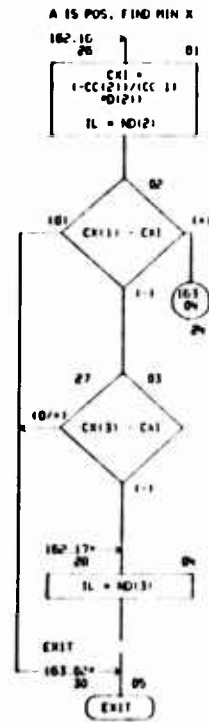
EVAL X AT Z = 1.0 .
TEST A,B10 = 1.0 FOR EXTRAP
LEFTA IS 0.0. ST LINE
TEST BB IS NOT ZERO. TEST
SIGN, 1 0 = EXTRAP
RIGHT

CHART TITLE - SUBROUTINE CGSP1A.221



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AUTOFLOW CHART SET - SLEEP WING AND EMPENNAGE MODULE - PAGE 105

CHART TITLE - NON PROCEDURAL STATEMENTS

COMMON T(2060),D(2060),CD(2000),ND(100)
DIMENSION
TDC(200),TSC(420),TSS(11),
CX(3),CZ(3),XN(3),ZZ(3),CF(9),CC(3)
EQUIVALENCE (TDC(1),T(1341)),(TSC(1),T(1541)),(TSS(1),T(1961)),
(CX(1),T(1307)),(CX(1),T(1323)),(CZ(1),T(1326)),(CC(1),T(1320)),
(CF(1),T(1332))
EQUIVALENCE (IL,ND(40)),(IK,ND(39)),(ND1,ND(1)),(INDT,ND(50))

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AUTOREG CHART SET - SHEEP MIND AND EMERGENCE MODULE - PAGE 106

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE SS*****

STRESS STRAIN CURVE EVALUATION AT GIVEN STRESS (FC)

CHART TITLE - SUBROUTINE SS(SFC)

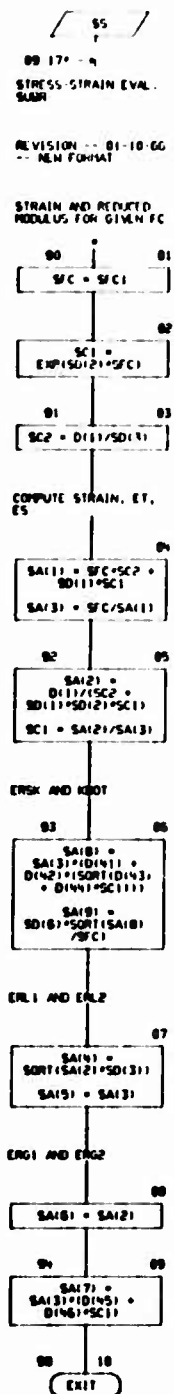


CHART TITLE - NEW PROCEDURAL STATEMENTS

COMMON T120601,D120601,CD120001,ND11001

DIMENSION

TDC12001,TSC14201,TSS11001,

SA1141,SD171

EQUIVALENCE (TDC111,T1134111),TSC111,T1154111),TSS111,T1196111,

(SA111,T1137711),TSD111,T1139211),TSC,T1139111),TSC2,T1132211),

(TSC1,T1132111)

CHART TITLE - INTRODUCTORY COMMENTS

```
*****  
*****SUBROUTINE PRTR*****  
**DESIGN DATA PRINT - TYPE B SECTION DESIGN DETAIL SUMMARY**  
*****
```

CHART TITLE - SUBROUTINE PRIB

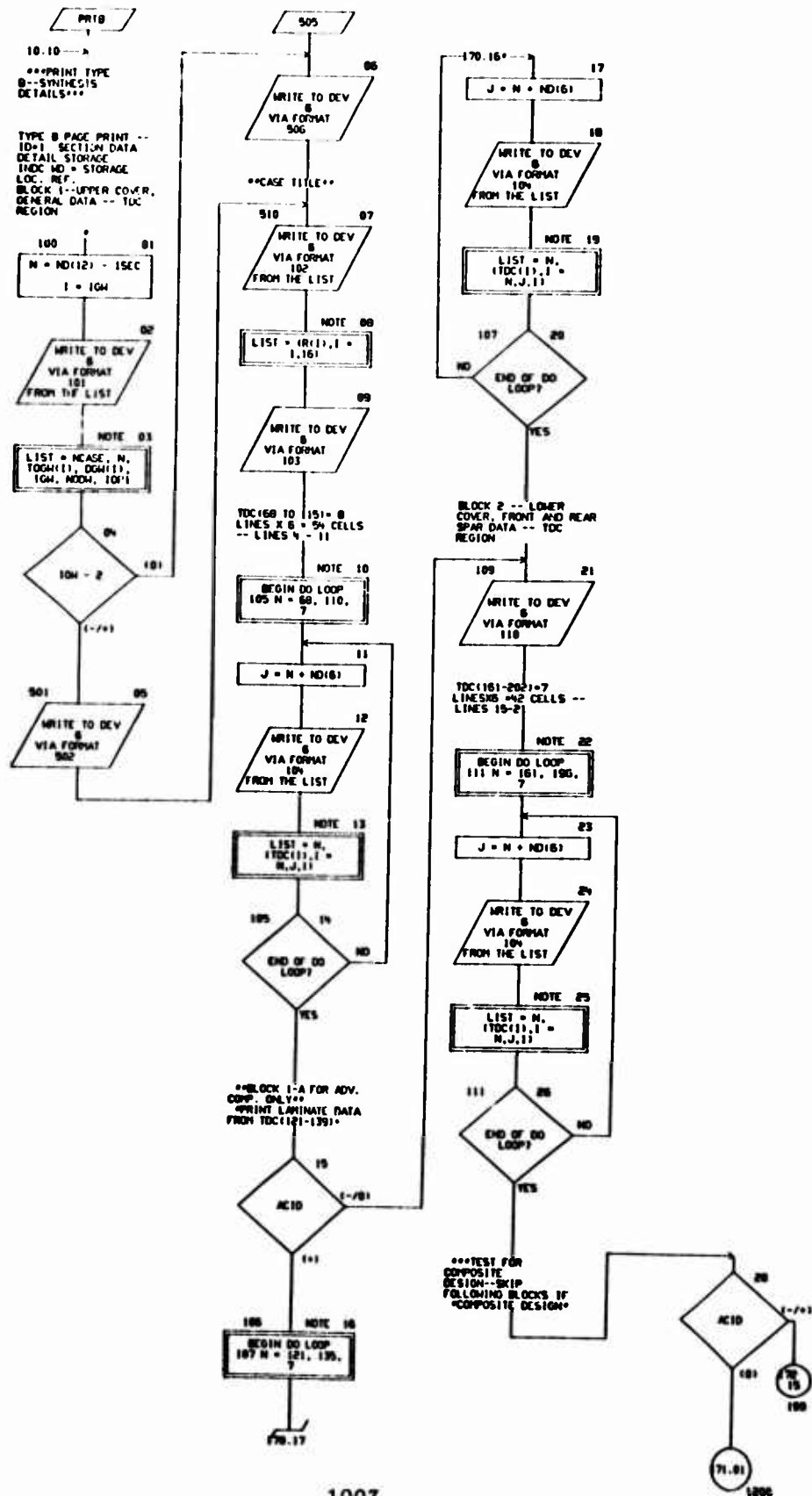


CHART TITLE - SUBROUTINE PR18

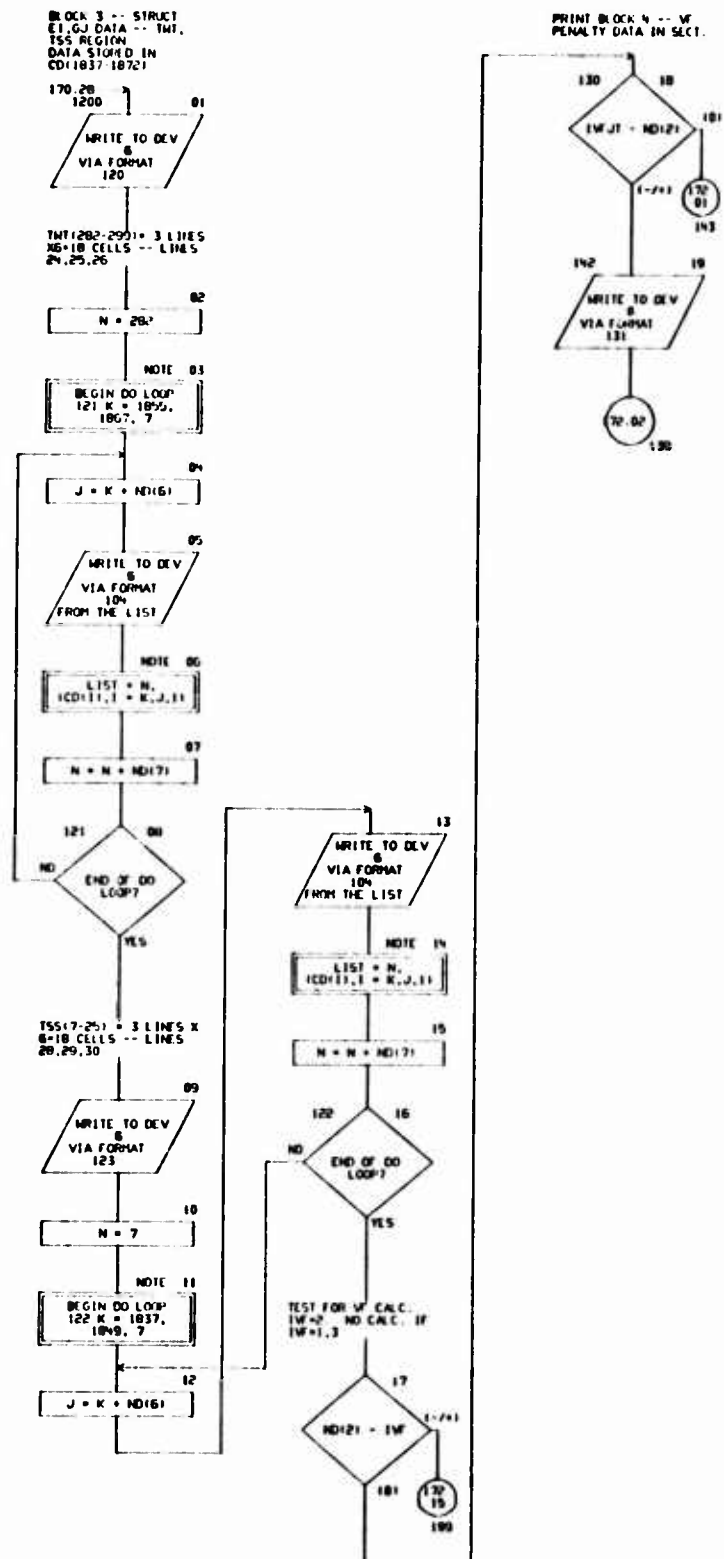


CHART TITLE - SUBROUTINE

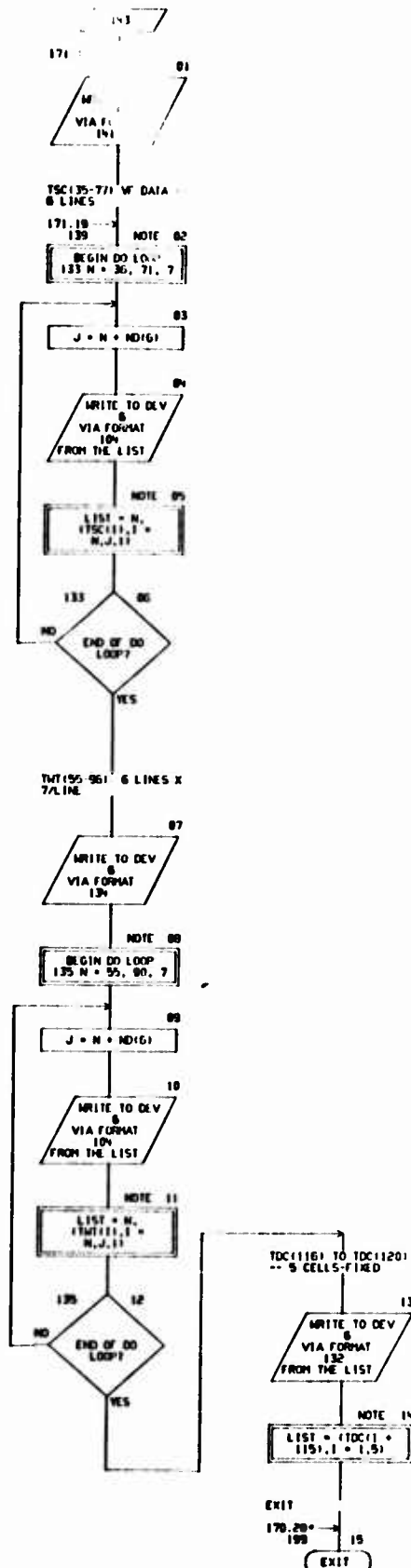


CHART TITLE - NIN PROCEDURAL STATEMENTS

```

COMMON T(2000),D(2000),CD(2000),ND(100)
COMMON /MISC/ NMISC(100)
DIMENSION D(100),IDC(200),TSC(420),TSS(100),TWT(400),TSEC(300),
TOOM(3),DGM(3),
R(16)
EQUIVALENCE (DC(1),D(101)),(TDC(1),T(134)),(TSC(1),T(154)),
(TSS(1),T(196)),(TWT(1),CD(110)),(TSEC(1),CD(150)),
(R(1),NMISC(1)),
(TOOM(1),D(80)),(DGM(1),D(102)),
(CACD,D(430)),
(I,ND(28)),(J,ND(29)),(K,ND(30)),(N,ND(31)),
(I,VFJT,ND(53)),(I,VF,ND(51)),(IOP,ND(82)),
(INDM,ND(56)),(IGH,ND(57)),(ISEC,ND(55)),
(INCAGE,ND(60)),(INPAGE,ND(65))
101 FORMAT (1H,4HEACE(4,10) SECTION 12,13H DATA TOOM=F(1,6H DGM=
F(1,6H IGH=F(1,7H INDM=F(1,7H IOP=F(1,12H,13H** PRIB = IP(1
902 FORMAT(1H,103X,6H32) **)
905 FORMAT(1H,103X,6H31) **)
102 FORMAT(1H0,8A10/1H,8A10/)
103 FORMAT (46H TDC ---UPPER COVER AND GENERAL DATA ---)
104 FORMAT (2X,13,7E15.7)
110 FORMAT (15H0 TDC ---LOWER COVER, FRONT AND REAR SPAN DATA---
)
120 FORMAT (42H0 TWT ---STRUCTURAL EI, GJ DATA--- )
123 FORMAT (6H TSS )
131 FORMAT (46H TSC ---DELTA V DATA -- J COMPARISON --- )
141 FORMAT (46H TSC ---DELTA V DATA -- TWT COMPARISON---)
134 FORMAT (6H TWT )
132 FORMAT (12H TDC(116) ,9F14.8)

```

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE PRIC*****

DESIGN DATA PRINT - TYPE C SECTION HEIGHT DETAIL SUPP *

CHART TITLE - SUBROUTINE PRTC

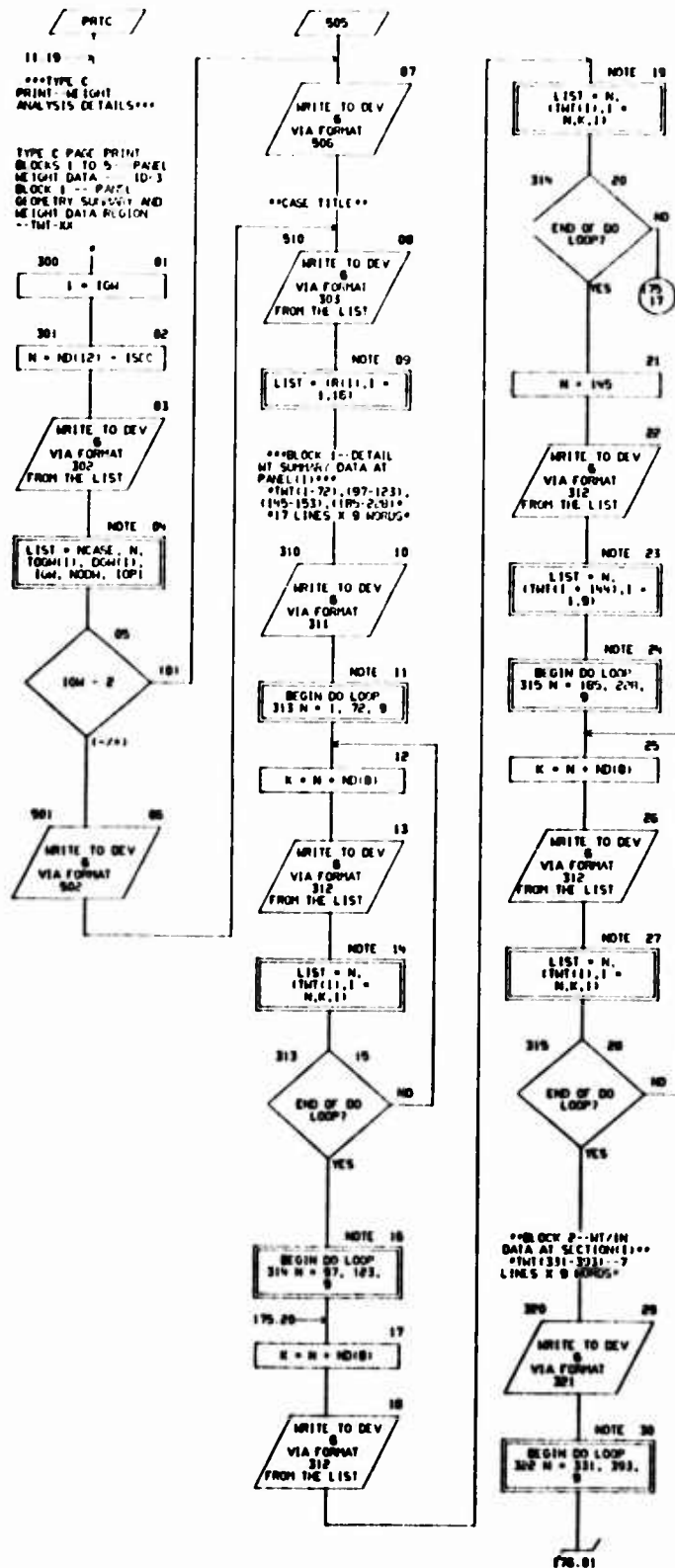


CHART TITLE - SUBROUTINE PRYC

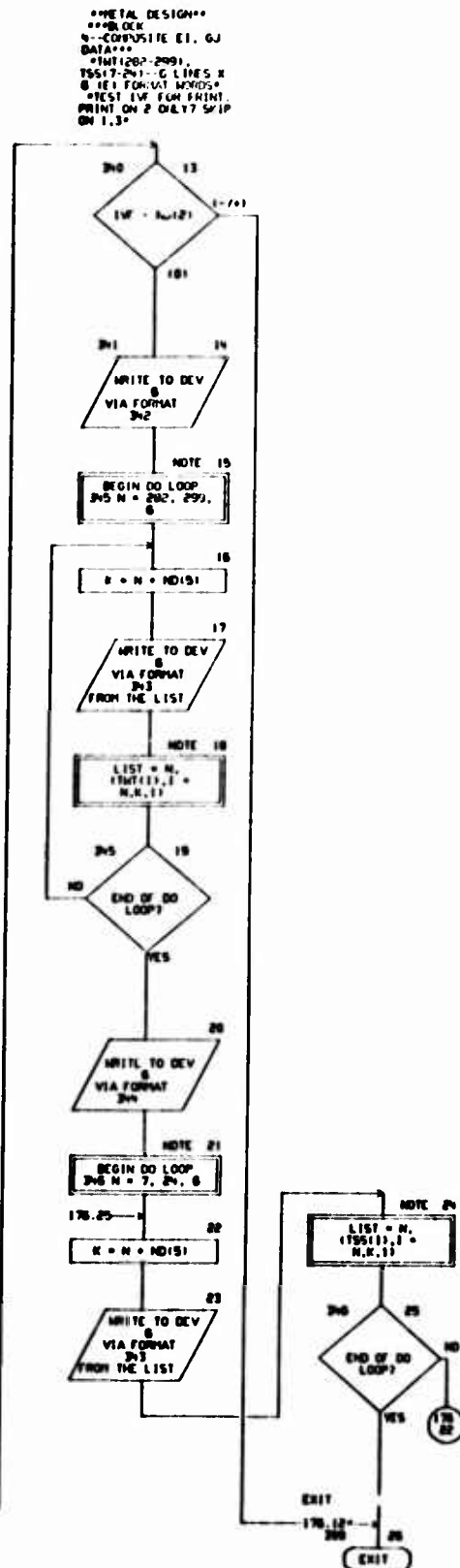
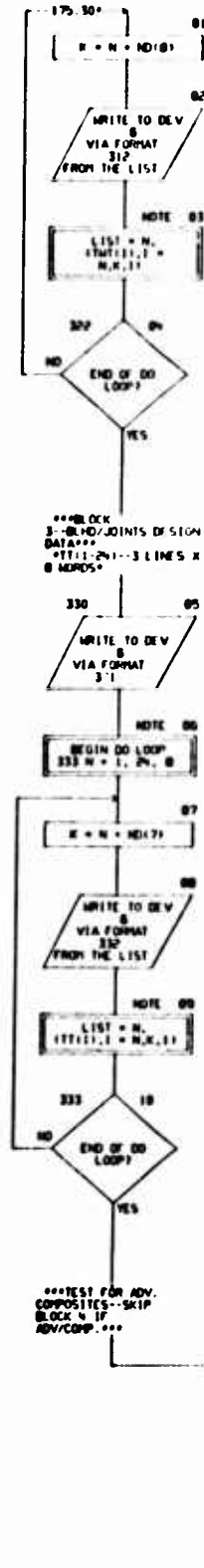


CHART TITLE - NON-PROCEDURAL STATEMENTS

```

COMMON I(2000),D(2000),CD(2000),ND(100)
COMMON /MISC/ NMISC(100)
DIMENSION DC(100),TUC(200),TSC(420),TWT(400),TSEC(300),
TT(20),TSS(100),
TOGM(3),DGM(3),
R(16)
EQUIVALENCE (DC(1),D(100)),(DC(1),T(130)),(TSC(1),T(150)),
(TSS(1),T(150)),(TWT(1),CD(100)),(TSEC(1),CD(150)),
(R(1),NMISC(100)),(T(1),T(130)),
(TOGM(1),D(100)),(DGM(1),D(100)),
(IAC(1),D(430)),
(I,ND(20)),(I,ND(30)),(I,ND(31)),
(IOP(1),ND(102)),
(IGM,ND(57)),(INDM,ND(56)),(IWF,ND(51)),(TSEC,ND(50)),
(INFACE,ND(100)),(INFACE,ND(100))
302 FORMAT (1H,1X,14,1H,1X,12,13H DATA TOGM=FB,1,GM DGM=FB,
1,GM IGM=11,7H INDM=11,7H IOP=11,14H,13H** PRIC - IP)
302 FORMAT (1H,103X,6H132) **
303 FORMAT (1H,103X,6H131) **
303 FORMAT (1H,8A10/1H,8A10/)
311 FORMAT (40H TWT ---DETAIL HEIGHT DATA--- )
312 FORMAT (3X,13,5F11.4)
321 FORMAT (40H TWT ---SECTION HT/INCH DATA--- )
331 FORMAT (40H TT --- JOINTS/BLND DATA--- )
332 FORMAT (3X,13,5F11.4)
342 FORMAT (40H TWT ---COMPOSITE E1-CJ DATA--- )
343 FORMAT (1H 3X,13,4F16.8)
344 FORMAT (GM TSS)

```

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AUTOFLOW CHART SET - SHEEP WING AND EMPENNAGE SCALE - PAGE 170

CHART TITLE - INTRODUCTORY COMMENTS

*****SUBROUTINE PRIOR*****

DESIGN DATA PRINT - DETAIL SYNTHESIS SEARCH DATA

CHART TITLE - SUBROUTINE PRINTK

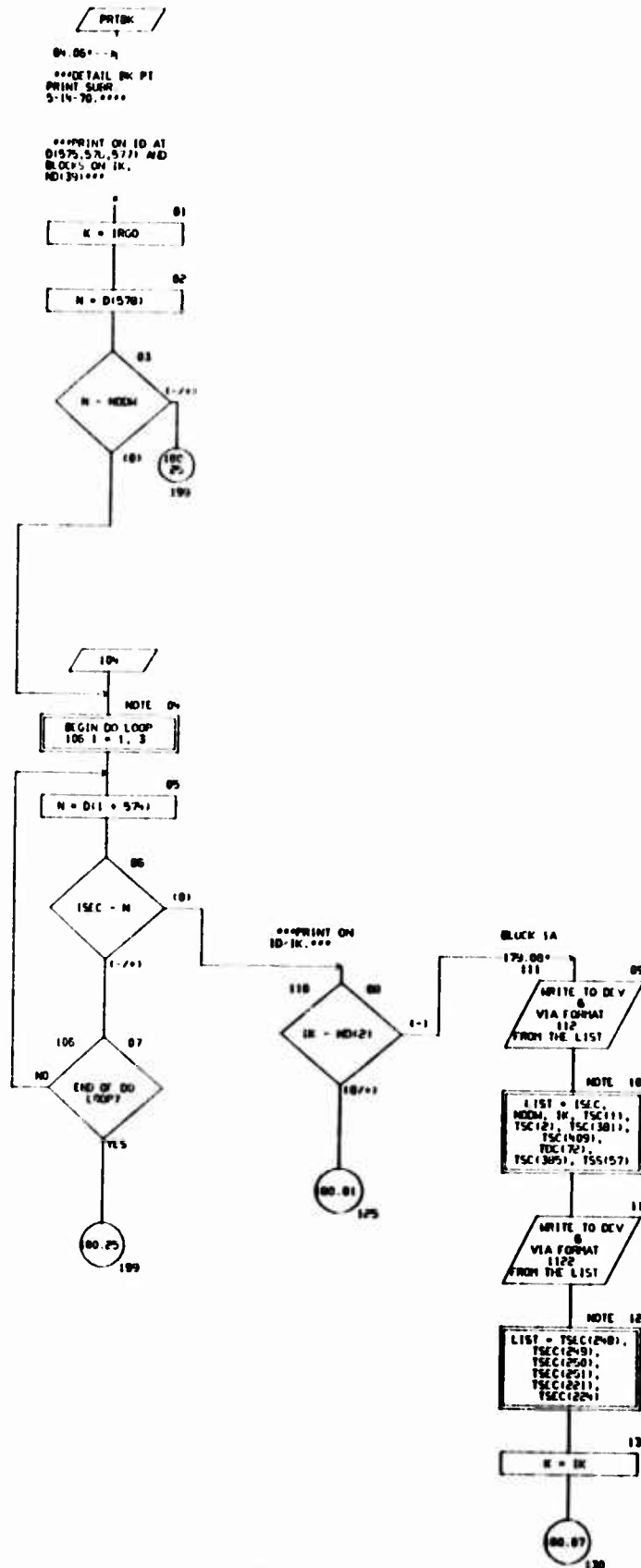


CHART TITLE - SIGNATURE - PRTN

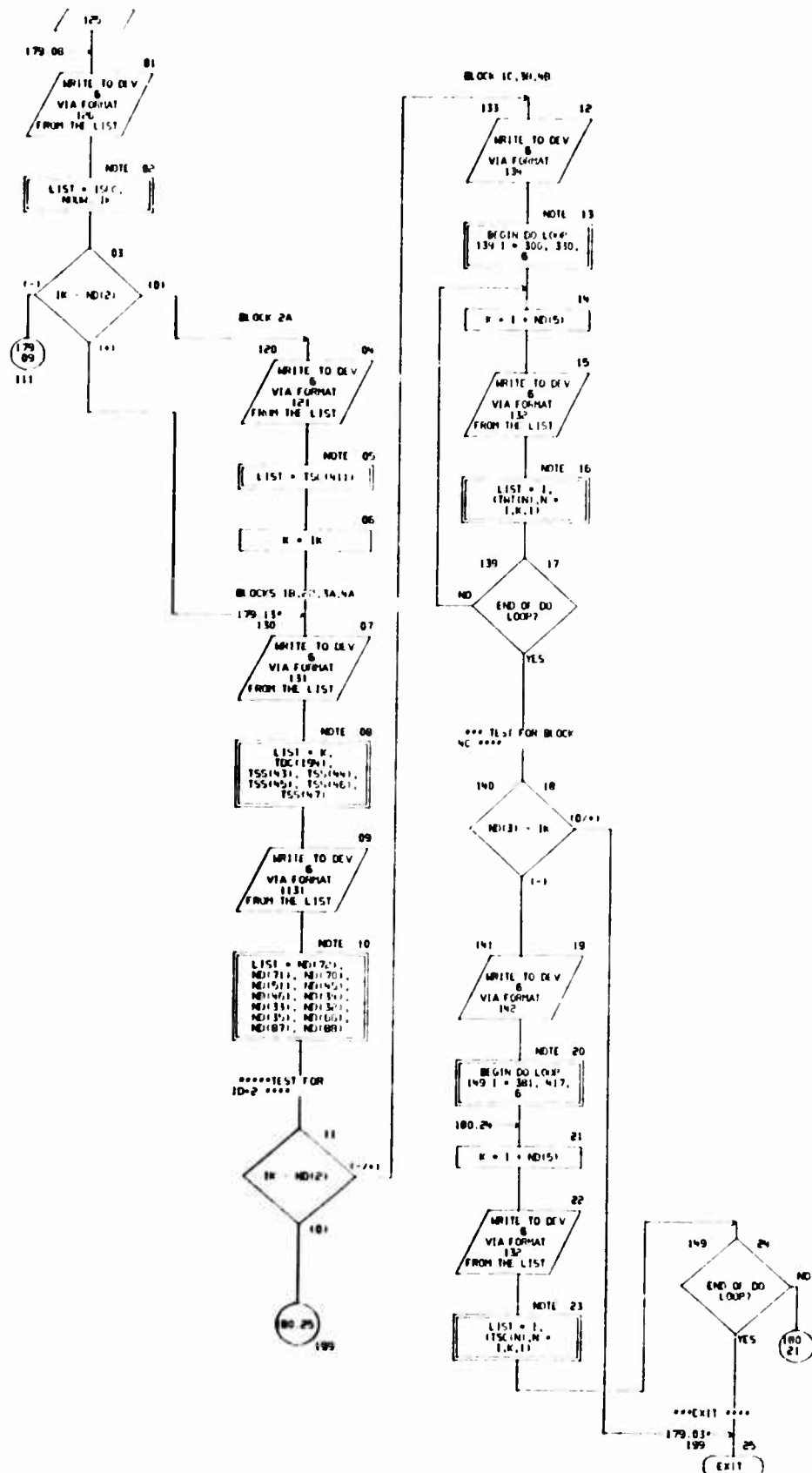


CHART TITLE - NEW PROCEDURAL STATEMENTS

```

COMMON T(2050),D(2050),CD(2000),ND(100)
COMMON /PRINT/ IP(60)
DIMENSION DC(100),
TDC(200),TSC(420),TSS(100),TMT(400),TSEC(300)
EQUIVALENCE (TDC(1),T(1341)),(TSC(1),T(1541)),(TSS(1),T(1561))
EQUIVALENCE (DC(1),D(1401))
EQUIVALENCE (TMT(1),CD(1101)),(TSEC(1),CD(1501))
EQUIVALENCE (IK,ND(130)),(ISEC,ND(55)),(I,ND(31)),(IN,ND(30)),
(IK,ND(29)),(IRGO,ND(20)),(INDM,ND(55))
112 FORMAT(1H,5X,6H1SEC =,13,5X,6HND =,13,5X,4H1K =,12,31X,
2H** PRINT (CALLED FROM TSC) - IP(33) ****
10X, @TSC(1) ,F15.6/10X, @TSC(2) ,F15.6/
10X, @TSC(301),F15.6/10X, @TSC(409),F15.6/
10X, @TDC(72) ,F15.6/10X, @TSC(305),F15.6/
10X, @TSS(57) ,F15.6//
1122 FORMAT ( 7H00THR=,1E13.5,5X, 6H00TR=,1E13.5, 5X, 6H00TC=,
1E13.5, 5X, 6H00TC=,1E13.5 /15H00TIO BT F/H =, 1E13.5, 21X,
10H = NF = RATIO =, 1E13.5 )
126 FORMAT(1H,5X,6H1SEC =,13,5X,6HND =,13,5X,4H1K =,12,31X,
2H** PRINT (CALLED FROM STR) - IP(33) ****)
121 FORMAT (10H0TSC(4111)=,F10.6)
131 FORMAT (14H, 5X, 10H,10H TDC(19), 5X, TSS(43) TSS(44)
TSS(45) TSS(46) TSS(47) / 7X,13,F10.6,5F11.7)
1131 FORMAT (5H0101=, 12,2X,4H1K=, 12,2X, 4H1R=, 12, 3X, 4H1K=, 12,
2X, 4H1K1=, 12, 2X, 4H1K2=, 12, 2X, 4H1L1=,12, 2X, 4H1L2=, 12,
2X, 4H1L3=, 12, 4H1P0=, 12 //3X,
2HCALL TSC FROM TSC=, 14, 3X, 2HCALL STR FROM TSC=,14, 3X,
10HSTRIDER SIZE CODE=, 14)
137 FORMAT (1H 3X,13,6E16.0)
134 FORMAT(6H TMT)
142 FORMAT (6H TSC)

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